University of Alberta

Rural Residents' Perspectives
Regarding Community Change, Challenges, and Well-Being:
A Socio-Ecological Case Study

by

Diana Catherine Keith ©

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

Conservation Biology

Department of Renewable Resources

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Diana Catherine Keith
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Rochester, Alberta T0G-1Z0

Date: 16 February 1999

Born in the days before industrial haze
Raised on the truth and calloused hand
They came through the wild and summer storms
And what we have lost only they'd understand

When you don't have a home
And you don't know where you're going
When life is uncertain you feel so alone
But hunger and pride and fear keep you going
Over the next hill, I'll lay me down

Till sleep takes my fears
Where forests still stand and skies are still clear
And when there's a reason to stop all this roaming
I'll lay me down and I'll call it home

Outside my window the birds sing in the willow
With promises of rain, promises of rain
The voice of The Valley comes soft on the morning breeze
I've been here always, come dance with me

Waltz the wild rose, the wild rose with me
Let your wind blow and set yourself free
Put down your troubles and count one two three
Waltz the wild rose, the wild rose with me
Waltz the wild rose with me

"The Wild Rose Waltz"
Howard Fix
Rochester singer/songwriter

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled *Rural Residents' Perspectives Regarding Community Change, Challenges, and Well-Being: A Socio-ecological Case Study* submitted by Diana Catherine Keith in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Conservation Biology.

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for Stan Rowe, Ph.D.

29 January 1999
Date:

To the Rochester Community

ABSTRACT

Ecological and social problems plague the planet today. In the rural world where human connections between land and people are especially evident, new and escalating problems exist, resulting from industrialization, urbanization, bureaucratization, and technology. Innovative solutions are required. Indeed, the time has come to consider ecological problems as social problems and, accordingly, planned social change as the route to global well-being.

This study examined the reality of the rural community where planned social change can begin. It investigated prerequisites of planned change: rural-community "facts" and perspectives. Specifically, it explored one community's change, challenges, and well-being, asking, What do Rochester, Alberta residents want for and from their community? It was a qualitative case-study that employed multiple research methods and comprised two parts. Part One described the geological, ecological, and social history of Rochester, Alberta ("facts") and Part Two explored residents' perspectives.

Part Two entailed structured focus-group interviews to hear views and experiences. Led by outside moderators, three focus-group interviews were held, containing 22 total participants and lasting two hours. Questions concerned community strengths and weaknesses. Data included focus-group interview transcripts, interview notes, observations plus insights, and data-analysis reflections. Thematic content analysis

uncovered 19 categories of responses encompassing a range of perspectives. From these categories, four themes emerged:

I. Rural living provides an ideal quality of life

II. Reduced opportunity for social interaction within community reduces community cohesion.

III. The contemporary rural lifestyle provides little opportunity to build roots.

IV. Negative attitudes and behaviours impede community action.

It was concluded that *for* their community, Rochester residents want economic, social, and ecological viability. *From* their community, residents want opportunities; interaction and personal relationships; and a voice in their future. In today's impersonal fast-paced global society, residents want the local community to be their refuge — a place where they matter, make a difference, and prosper. Research also revealed the importance of community interaction — to community roots, quality of life, and community well-being — plus the crucial role community well-being plays in collective action. Results are valuable to developing an ecological perspective of community development.

ACKNOWLEDGMENTS

This dissertation represents an intensive exploration of the geological, ecological, economic, and social life of one small community. The community is Rochester, Alberta, my home. In spite of the many voices warning me against studying my own home town, this choice of topic proved my good fortune. Not only did it drive me forward when the path to a Ph.D. grew political, obscure, and lonely, but it provided reason and inspiration when the degree itself seemed meaningless.

For without a doubt this Ph.D. proved more taxing than I ever dreamt possible. Supervision was wanting. Funding was limited. Misunderstanding of and disrespect for both qualitative research and applied research flourished. At the same time came my personal discovery that industry's presence looms large within the University of Alberta's Department of Forestry (now a part of the Department of Renewable Resources), its perspective impacting professor-student relations and influencing research decisions. To be specific, there was Mitsubishi's Alpac. Amid the numerous attempts of its "integrated environmental resource manager" to sit on my supervisory committee, I learned firsthand the power, manipulation, and respect an enormous transnational corporation wields within the hallowed halls of academia.

Not only did administration of this research project prove taxing, however, but qualitative research proved every bit as time-consuming and tedious as I'd been forewarned. That said, however, it proved every bit as exhilarating as well! For from the lengthy historical review and the detailed focus-group analysis came revelations, both academic and practical.

In sum, it was the knowledge gained during the pursuit of this Ph.D. that provided my greatest satisfaction. Although I hope this dissertation and its antecedent publications are academically significant, I am convinced the process they entailed made me a better researcher and community member. Why?

First, the path toward the Ph.D. fostered my awareness, understanding, and appreciation of qualitative research methodology. Second, that path enhanced my knowledge in the fields of Sociology, Community, and Community Development — fields in which I had no academic knowledge before this research project. Important to my growth was the extensive literature review; were it not for the Ph.D., my impatience would have decreed this significant step unwarranted. Third, the path to this Ph.D. led to greater understanding, appreciation, and respect for my own community — for the land, for the events, for the people that preceded us and live in Rochester today.

That said, it is the people who live in Rochester today to whom I owe the greatest debt. Without their interest, enthusiasm, and encouragement, without their

cooperation, candor, and patience, this study would not have been possible. To be sure, the perspectives and insights that residents offered were fundamental to this research project. Focus group participants gathered inside the Seniors' Drop-In Centre on a beautiful spring weekend to generously donate time, views, and experiences. Many other residents kindly responded sincerely to my questions. I sincerely thank every one of these people.

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Although not on my committee, one more University of Alberta professor did furnish extensive help. It was Margaret Haughey who provided advice regarding qualitative analysis after Carl moved on. I thank you for your patience, Margaret.

There were other people and institutions who provided financial assistance. My mother Catherine Keith funded my final year of this investigation; without her generosity and belief in me this study would not have been completed. My father Lloyd Keith also provided financial backing and encouragement: a "hearty thank you!" Social Sciences and Humanities Research Council of Canada (SSHRC) provided the bulk of funding, while the University of Alberta Faculty of Graduate Studies and Research provided assistance as well. Moreover, I gratefully acknowledge Earth's General Store that generously donated re-used paper on which to print thesis drafts.

I also acknowledge the people who generously provided technical assistance to this research project — self-actualized individuals who charged me not a dime. Dianne Conrad moderated focus group interviews, her warmth, interest, and professionalism clearly placing participants at ease enough to openly and honestly discuss their experiences and perspectives. What's more, her wonderful voice and

sense of humour lightened the endless hours of transcription that followed. I'm certain no other researcher has been more blessed: thank you, Dianne. Keltie Hunter, too, provided essential service as assistant focus group moderator. What's more, Dean Rochuk of the University of Alberta Geology Department took brief but valuable time from his own Ph.D. and Dr. Nat Rutter took time as well to provide insight into a topic of which I had little knowledge: Alberta geology.

On a personal note, I thank Connie Bresnahan who wouldn't let me quit. Her unflagging support as a friend, mother, activist, and scholar provided me the motivation I needed to continue when academia seemed senseless in the face of sacrifices made. You, too, can do it! I thank Syma Ebbin too, with whom I decided to embark upon this Ph.D. and whose encouragement and progress pushed me forward. Together the two of us — Syma at Yale and I at the U of A — sweated, commiserated, and completed our degrees in the same year. And also I thank Lesley Curthoys who provided help with methodology. Howard Fix oversaw the tape-recording of focus-group interviews and helped transcribed focus-group responses. My sister Annie Keith, brother Bryan Keith, sister-in-law Janet Keith, and uncle and aunt — Rod and Alma Small — furnished valued support in the final days of the dissertation. Additionally, Bryan and Jan spent hours proofreading and editing: thank you! Moreover, I am grateful to Bruce Stewart for single-parenting Sean when he did, thereby allowing me to immerse myself in this study.

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TABLE OF CONTENTS

1 INTRODUCTION TO RESEARCH............................ 1

Background to the Problem..1

  Ecological Degradation Hurts All Living Things....................2

  Social Problems Escalate..3

  Change Comes to Rural North America..............................4

  The Significance of the Rural Community..........................5

Statement of the Research Problem.......................................6

  Facts Plus Perspectives Determine Planned Social Change........6

  An Ecological View of Community Development is Needed......7

  The Research Question...8

  Research Objectives...8

  Research Assumptions..9

  Research Limitations..9

Nature of the Case-Study Site..10

  Description of the Case-Study Site.................................10

  Justification of the Case-Study Site................................11

Significance of this Study..11

Organization of the Dissertation...12

2 RESEARCH DESIGN AND METHODS....................... 14

Phase One of Research — Reviewing the Literature 15

Phase Two of Research — Designing the Case Study 17

    The Case-Study Protocol 17

    The Research Question 18

    Definition of Terms 18

    Hypotheses 19

    The Unit of Analysis 20

Phase Three of Research — Determining Community Bounds 20

    Residents Define Community Boundaries 21

    Community-Recognized Boundaries are Ignored 22

    Traditional Boundaries Linger 23

Phase Four of Research — Describing "the Facts" 23

    Why Facts And Then Perspectives? 24

    Employing Multiple Data-Gathering Techniques 24

Phase Five of Research — Exploring Perspectives 25

    Contemplating Focus-Group Strengths and Weaknesses 25

    Reviewing the Rochester-Focus-Group Procedure 26

    Designing Focus-Group Questions 28

        The Interview Guide 28

    Selecting a Focus-Group Moderator 29

    Selecting Focus-Group Participants 29

    Analyzing Focus-Group Responses Via Content Analysis 30

Phase Six of Research — Reviewing the Literature 32

Tests of Research Quality 32

    Bias — a Potential Source of Error 33

- Researcher bias 34
- Bias Due to Research Design 36
- Bias Due to Respondent Behaviour 36
- Reliability 37
- Validity 38
  - Construct validity 38
  - External validity 38
  - Ecological validity 39
- Ethical Considerations 39

3 REVIEW OF THE LITERATURE 41

- The Concept of Community 42
  - Defining Community 42
  - One Perspective of Community 43
- The Transformation of Society 43
  - The Industrial Revolution Transforms Society 44
- Classical Social Theory Regarding Societal Transformation 45
  - Tonnies Introduces Gemeinschaft and Gesellschaft 45
  - Other Classical Theorists Contemplate Society 46
  - A North American Perspective Emerges 47
  - The Rural-Urban Distinction Loses Popularity 48
- Contemporary Sociological Views 49
  - A Rural-Urban Distinction Exists Today 50
- The Rural Population Turnaround 50
  - A Pro-Rural Perspective Exists 50

People Move to the Country 52
Rural Commuting 53
Which Rural Residents Commute? 53
Why do Rural Residents Commute? 53
Rural Community Stress 54
Newcomers Bring Stress 54
Rural Communities Are Under Stress 55
The Importance of Social Interaction 56
Humans Require Human Interaction 57
Social Interaction Addresses Basic Needs 58
Humans Need Relationships 58
The Importance of Social Interaction 59
Group Survival Requires Conformity 59
Positive Interaction Leads to Group Cohesion 60
Strong and Weak Ties Create Community Cohesion 61
Negative Interaction Leads to Fragmentation 62
Communication Strengthens the Group 63
Community Attachment 63

PART ONE: FROM THE PAST THE FUTURE COMES 65

4 THE LAND TAKES SHAPE 68

In the Beginning 68
Our Living Planet Forms 69
North America Forms 70

The Paleozoic Era — 590 Mya To 250 Mya 70
  Complex Organisms Arise 70
  Rocks and Minerals Form 71
  Earth's Most Catastrophic Extinction Occurs 72
The Mesozoic Era — 250 Mya To 65 Mya 72
  Plants and Animals Evolve 72
  Coal and Peat Form 73
  Another Mass Extinction Occurs 73
  The North American Plate Drifts North 73
The Cenozoic Era — 65 Mya To Present 74
  Biodiversity Flourishes 74
  The Ice Age Descends 75
  The "Great Extinction" Occurs 76
The Rochester Region Takes Shape 77
  Ice Encases the Rochester Region 77
  The Landscape Develops 78
    Meltwaters Create the Tawatinaw Valley 79
    The Tawatinaw River Forms 79
Organisms Return to the Rochester Region 80
  An Arid Climate Predominates 80
  Soils Develop 80
  Plants and Animals Return 81
The Boreal Forest Develops 82

5 THE PEOPLE COME 85

The First People Arrive 86

Beringia Lies Exposed 86

The First People Migrate..87

An Ice-Free Corridor Allows Passage..................................87

Humans Come to the Rochester Region 88

Early Residents Adapt...89

A Culture Develops...89

Native Groups Occupy the Region 90

The Native Culture Is Ravaged..91

The Fur Trade Desecrates Native People.............................92

Native People of the East Displaced Native People of the West..92

Treaties Displace Native People..93

Missionaries Convert Native People...................................94

The Government Looks West 94

The Athabasca Landing Trail Leads North............................95

Klondikers Travel the Landing Trail.........................96

Homesteaders Travel the Landing Trail 96

Homesteaders Arrive 98

Homesteading Has a Cost 98

The Rochester Region is Settled 98

Pioneers Make a Home...99

Men Leave For Work...101

Pioneers Interact 101

The Steam Engine Creates Change 103

More Settlers Arrive 103

Community Control First Declines 103

6 THE SETTLEMENT CHANGES................................ 105

Residents Build Businesses 106

The Internal Combustion Brings Change 106

Communication Technologies Break Isolation 107

Machinery Transforms Farms...107

Vehicles and Roads Facilitate Travel 108

Rochester Reaches Its Prime 109

Social Interaction Abounds 109

Rochester Becomes a Stop-Off Centre 110

The Rochester Economy Slumps 111

Schools Consolidate...111

The Rochester Community Today 112

The Small Town Survives 112

The County Governs the Community 113

The Economy Struggles On 114

Employment Opportunities are Limited 114

Family Businesses Exist...115

Residents Spend Time and Money Away............................115

Social Activity Persists..116

Some Participation Exists..116

Conflict Shakes the Community 117

Seasons Are Significant..118

7 INDUSTRY ALTERS THE LAND.............................. 120

- The Boreal Forest Blankets Rochester 121
- Seven Tree Species Dominate the Region.....................................121
- Peatlands Exist In the Rochester Region.....................................123
- Water Abounds in the Rochester Region.....................................123
  - Creeks and Rivers Flow 124
  - Ponds and Lakes Exist..124
  - Rochester Lies In the Athabasca-River Watershed..................124
- Wildfire Is Part of the Boreal Forest..125
  - Wildfire Ensures Ecological Health...................................125
  - A Wildfire Is Not A Clearcut...126
  - Succession Regenerates the Forest 126
- The Value of Rochester's Forest..127
  - Thousands of Species Make the Forest 128
  - Interconnection in Action 129
- Human Activities Transform the Land 130
  - Industrial Agriculture Degrades the Land 130
  - Logging Removes Trees and Money From the Community.......131
  - The Petroleum Industry Degrades the Landscape....................132
  - The Mining Industry Strips the Tawatinaw Valley...................134
  - Municipal Development Disregards Ecological Needs 135
- Conservation Attempts Exist 135
  - Few Environmental Laws Exist..137

PART TWO: FROM RESIDENTS PERSPECTIVES THE FUTURE FORMS.. 138

8 RESIDENTS VOICE PERSPECTIVES........................ 140

Content Analysis Revealed Clusters of Interest 140

The Place.. 140

Rochester is a Special Place 141

Rochester is a Place to Build Roots.................................... 141

Rochester is a Home Place.. 141

Rochester is a Place to Belong 141

The Land.. 142

The Land Is Sustenance.. 142

The Land Is a Basis for Industries...................................... 142

The Land Is an External Force 143

The Land Is a Healthy Environment.................................... 143

The Land Is a Foundation Of a Sustainable Community.......... 143

The Land Is an Intricate Ecosystem.................................... 143

The Land Is Nature 144

The Land Is Scenery.. 144

Financial Stress 145

Family Farms Endure Economic Problems........................... 145

Town Businesses Are Dying 146

Personal Economics Are a Problem 146

Opportunities, Activities, and Services................................. 146

Limited Local Opportunities Exist 147

Sports Provide Some Local Opportunities 147

What Local Opportunities Are Needed? 148

Central Proximity 148

Rochester is Located Near Business Centres 148

Rochester's Location is a Mixed Blessing 149

Daily Stress 149

Daily Stress Abounds 149

Community Life 150

The Family-Farm Lifestyle is Revered 150

The Community Lifestyle Entails Safety and Trust 151

The Community Lifestyle Entails Friendliness 151

The Community Lifestyle Entails a Sense of Belonging 151

The Community Lifestyle Entails Special People 152

The Community Lifestyle Entails (Some Degree of) Support 152

Community Support Has Dwindled 153

The Community Lifestyle Entails a Lack of Privacy 153

Backstabbing and Loose Talk 153

Backstabbing Is an Uncomfortable Topic 153

People Gossip For Many Reasons 154

Backstabbing Is Best Ignored 154

Backstabbing Hurts the Community 154

Face-to-Face Interaction 155

Face-to-Face Interaction Has Declined 155

Little Cross-Generational Interaction Occurs 155

Communities within the Community 156

The Rochester Community is Fragmented 156

    - Limited Information Flows Between Communities-Within-the-Community 157
    - Limited Awareness Exists About the Rochester Community 157
        - Communication Channels Are Required 158
- Active Involvement 158
    - Involvement Has Declined 158
    - Limited Time and Energy Curtail Involvement 159
    - Community Involvement Is Discouraging 160
    - Varying Degrees of Commitment Exist 160
- Family 160
    - The Changing Family Means a Changing Community 161
    - Family Provides Important Personal Support 161
    - Family Connections are Community Connections 161
- Young People 161
    - Youth Today Are Different 162
    - Youth Leave the Community 162
    - Youth Need Local Opportunities 162
    - Some Youth Return To Live 162
- New People 163
    - Newcomers Bring Positive Change 163
    - Newcomers Bring Negative Change 163
    - Newcomers Should Be Filtered 164
    - Newcomers Leave 164
- Organizations 164
    - Extreme Viewpoints Surround Rochester School 165
        - Rochester School Is the Crux Of the Community 165

        Rochester School Is Just Part Of the Community..........165
    Rochester School Can Be Improved...............................165
    Extreme Viewpoints Surround the Rochester Agricultural Society 166
        The Rochester Agricultural Society Is Important to the Community.....166
        The Rochester Agricultural Society Is a Closed and Self-Serving Group.....166
Outside Social Forces 166
    Government Ignores Rural Communities and Farmers 167
        Government Regulations Are Inept..........................167
    Corporations Undermine Community Well-being 168
        Corporations Control the Local Economy 168
        Outside Ownership Usurps Local Control..................168
        Corporations Degrade the Landscape.........................169
    Outside-Owned Industry Is Important But Unwanted..............169
        Outside Owned Industry Provides Local Economic Gains.....169
        Heavy Industry Is Unacceptable 169
        Extractive Industry Creates Community Problems 170
Local Industry.....170
    Rochester Must Change With the Times.............................170
    Rochester Needs Economic Self-Sufficiency........................170
    Green Industry Is Needed 171
    Tourism Provides Hope...171
The Forecast.....172

Rochester Must Take Charge 172
Tenets Provide A First Step in Community Development 172
    Little Hope Exists 173
A Dichotomy of Perspectives Exists 173

9 UNDERLYING THEMES EMERGE 179

Theme I Rural Living Provides an Ideal Quality of Life 179
    Theme I Interpretation of Data 180
        Latent Perspectives 180
        Manifested Patterns 181
    Discussion of Theme I 183
        Comparing for a Rochester Superiority 184
        Recognizing Gemeinschaft-like Qualities 186
        Dismissing Problems 188
Theme II Reduced opportunity for social interaction within the community reduces community cohesion 188
    Theme II Interpretation of Data 190
        Manifested Patterns 190
    Discussion of Theme II 191
        Becoming Dependent 192
        Commuting to Stress 194
        Decreasing Interaction — Decreasing "Community" 194
    Theme III Interpretation of Data 198
        Latent Perspectives 198
        Manifested Patterns 198

Discussion of Theme III 200

Becoming Transient 200

Forming Roots 202

Theme IV Negative Attitudes and Behaviours Impede Community Action 204

Theme IV Interpretation of Data 205

Latent Perspectives 205

Manifested Patterns 208

Discussion of Theme IV 210

Negativity Aimed Inward 210

Negativity Aimed Outward 213

10 SUMMARY AND CONCLUSIONS.................... 215

Summary of Methods and Results 216

Conclusions to the Research Question 217

Conclusion 1

Rochester residents want opportunities of all kinds — economic, social, cultural, educational, recreational — within their community for all people of the community, for youth and seniors in particular. 218

"But What Can You Do?" 220

Conclusion 2

Rochester residents want community control. 221

"But What Can You Do?" 222

Conclusion 3

Rochester residents want meaningful relationships with one another, within their bounded community.......223
"But What Can You Do?"......................................225
Implications of Research to the Rochester Community 225
Recommendations for the Rochester Community...........................228
A Strategy for Social Interaction 228
A Concrete Opportunity for Social Interaction 229
Establishing a Park Provides Interaction..............................230
Provide Other Opportunities for Interaction 231
Develop Economic Opportunities 232
Implications of Research to Global Well-Being..............................232
How Do Results Help to Resolve the Planet's Problems?.........232
Where Does an Ecological Perspective of...........................233
Meeting Research Objectives 235
Recommendations for Further Research 235
Concluding Remarks 237

BIBLIOGRAPHY 243

APPENDIX I 273

APPENDIX II 276

APPENDIX III 278

APPENDIX IV 284

APPENDIX V 286

APPENDIX VI 289

LIST OF TABLES

Table 4.1 Geologic time and significant events in Earth's history, condensed into one year 84

Table 8.1 Categories, perspectives, and range in perspectives addressed in focus-group interviews 175

Table 9.1 Manifested patterns and latent perspectives leading to Theme I 179

Table 9.2 Manifested patterns and latent perspectives leading to Theme II 188

Table 9.3 Manifested patterns and latent perspectives leading to Theme III 197

Table 9.4 Manifested patterns and latent perspectives leading to Theme IV 204

LIST OF FIGURES

Figure 1.1 Map of Alberta, highlighting Rochester....................................239

Figure 4.1 Map of the landforms of the Rochester region 240

Figure 6.1 Map of the geography of the Rochester community 241

Figure 6.2 Map of the Rochester hamlet 242

1 INTRODUCTION TO RESEARCH

> Before I flew, I was already aware of how small and vulnerable our planet is, but only when I saw it from space, in all its ineffable beauty and fragility, did I realize that humankind's most urgent task is to cherish and preserve it for future generations.
>
> Sigmund Jahn
> Soyuz 31
> August 1978

> If we do not speak for the Earth, who will? If we are not committed to our own survival, who will be?
>
> Carl Sagan
> *Cosmos*

> In a world of uncertainty and danger, small communities can be places for social pioneering, as indeed they always have been.
>
> Alex Sim
> *Land and Community: Crisis in Canada's Countryside*

Background to the Problem

Amid empty blackness, a hundred thousand million galaxies exist. Within each galaxy, a hundred thousand million stars exist. Within one galaxy and circling one star, there is a small blue planet. From afar, it is a speck of light — "a small pearl in a thick sea of black mystery," reported Apollo Astronaut Edgar Mitchell. Closer up, it is a "beautiful, warm, living object [looking] so fragile, so delicate, that if you touched it with a finger it would crumble and fall apart," said Apollo Astronaut James Irwin. It is planet Earth. It is our home.

To date, it is the only planet we know of that harbours Life, and, indeed, the only planet we know of that can support Life. Earth is us and we are Earth, for we are the product of its formation and change. More precisely, to Earth and to every living thing upon it — past, present, and future — we humans are inextricably connected. We are made of the same molecules that have composed all plants and animals that existed before us. And we are made of the same basic organic molecules that compose every living creature that exists today and tomorrow.

But we are ransacking our home and, thus, imperiling all that we are and might be. Never before in Earth's history has a species knowingly caused the mass extinction of other species. Never before has a species knowingly annihilated the living planet. In the name of progress, we humans are destroying, transforming, and poisoning ecosystems and, so, jeopardizing our own life support system.

Ecological Degradation Hurts All Living Things

Take the planet's forests, for example. Manufacturing oxygen, storing carbon, preventing erosion, harbouring pharmaceutical drugs, and providing food and fuel to most of the human population, forests are begin cut at a rate of 17 million hectares annually (Brown 1992, 3). At this rate, within 50 years — one short generation — most of our planet's forests will be gone. Brazil, for instance, saw one acre of forest cleared every 8.6 seconds in 1994, and Canada saw one acre of forest cleared every 12.9 seconds in 1995 (Canada's Future Forest Alliance 1997, 1). Estimates for more recent years are even greater (Canada's Future Forest Alliance 1997, 1), with foreign-based transnational corporations responsible for most logging. In addition to deforesting the landscape, we are creating deserts, sterilizing and losing topsoil, draining wetlands, emptying aquifers, poisoning water — groundwater, streams, rivers, lakes, and oceans — damming rivers, fouling the air, stockpiling garbage, creating toxic and radioactive wastes, heating the planet, changing weather patterns, and depleting our planet's protective ozone shield.

The cost of such degradation is extinction.

Ecosystem degradation brings about habitat degradation, contamination, and loss — which, in turn, brings about endangered and extinct plant and animal species. According to some estimates (Goldsmith et al. 1990, 39; Wackernagel and Rees 1996, 31), for example, as many as 17,000 plant and animal species vanish annually, roughly 50 species a day, an unprecedented rate of extinction 10 to 1,000 times greater than rates preceding human existence (Goldsmith et al. 1990). There are, for instance, fish and other animals inhabiting coral reefs lost when fertilizers, pesticides, and other pollution kill that rich and fragile ecosystem. There are desert species threatened by oil mines, nuclear tests, toxic industrial dumps, and playgrounds. And there are Arctic species threatened by commercial oil and mineral mining, logging, dams, pollution and — in north Scandinavia — radioactive fallout from Chernobyl, PCBs, mercury, and global warming.

Moreover, frog populations are declining planetwide. The indicator species of general ecological health, frogs not only are disappearing but — in Wisconsin — are born with missing and misplaced body parts (Lavendel 1998). What, then, of humans?

Humans, too, endure the consequences of ecological degradation. For instance, old diseases have returned and new diseases have surfaced. Diphtheria, plague, malaria, and yellow fever are on the rise, the Harvard Working Group on New and Resurgent Disease reported in 1996. New variants of cholera have emerged from widespread flooding, oppression, and poor hygiene, reported physicians on CBC Radio News (24 January 1998). AIDS spreads. New viruses emerge: ebola virus, Hong Kong's "bird flu," and a new strain of hanta virus. Lyme disease forms a major US epidemic. And the incidence of cancers — those of the reproductive system and nervous system in particular — and of such immune system disorders as asthma and diabetes have increased globally (Colborn, Myers, and Dumanoski 1996). And, too, sperm quality has decreased significantly in men of industrial nations and sperm count has declined 50 per cent (Colborn, Myers, and Dumanoski

1996). IQ, short-term memory, attention span has declined as a result of exposures to toxic metal and lead. And the incidence of birth defects and migraine headaches is increasing.

At the same time, industrial chemicals like dioxins, furans, and polychlorinated biphenyls or PCBs increase; these are toxins linked to cancer, deformities, immune system disorders, and reproductive disorders. At Swan Hills, Alberta, for example, Canada's largest waste treatment plant twice leaked PCBs, dioxins, and furans into the atmosphere during the 1996 hunting season; later, the provincial government warned people to limit consumption of animals killed within 30 kilometres of that plant.

Social Problems Escalate

Species vanish. Health concerns rise. And, at the same time, social inequity flourishes. Looking at resource consumption, the rich industrial nations of the northern hemisphere feed upon the poor nonindustrial nations of the southern hemisphere. According to the 1992 *Official Report from the World Women's Congress for a Healthy Planet* (6), for example, a resident of the northern hemisphere consumes 115 times more paper, 52 times more meat, and 35 times more energy than a person in Latin America.

There is income inequity, too. The rich get richer and the poor get poorer. According to the United Nations Development Program (UNDP) *Human Development Report* for 1992, the richest 20 per cent of the human population receives 82.7 per cent of the world's income and the poorest 20 per cent receives 1.4 per cent. Additionally, on average, the richest 20 per cent of the population receives 60 times more income than the poorest 20 per cent: a number that has doubled since 1950 (Korten 1996, 24). Meanwhile, the poorest 20 per cent of the human population lives in deprivation amid malnutrition and famine. And, too, there is gender inequity, with women being poorer than men, working more than men, receiving less income and education than men, and seldom holding political office.

All the while, the human population explodes. According to the October 1998 projection by the U.S. Bureau of the Census' International Programs Center (http://www.census.gov/cgi-bin/ipc/popclockw), our population will have increased by 79 million people between July 1998 and July 1999, for example, with a 6.5-million-person increase in just July 1999. Growth occurs principally in third-world nations that already have too little arable land suitable to permanent and sustainable agriculture and too little fresh water. At nearly 5.9 billion people today, the human population is projected to reach 6 billion by July 1999. It will reach 10 billion by 2030 (Goldsmith et al. 1990, 258).

By 2020, more than 75 per cent of the world's people will live in cities (Goldsmith et al. 1990, 241). Today, nearly 50 per cent — more than 2.5 billion people — inhabits urban areas *(Britannica Book of the Year* 1997, 296). Super cities explode in size, straining the environment, draining resources, and plagued by health, social, cultural, and ecological problems.

Mexico City, for example, contains nearly 26 million people, up from 3 million in 1950 — a 750 per cent increase in 50 years (Rogers et al. 1988, 266). Sãu Paolo, Brazil has roughly 24 million people. Such enormous cities expand with rural immigrants displaced from the land by current development policies that include corporate takeover, farm mechanization, and improved technology. Lured by mass media reports of good living conditions and high wages (Rogers et al. 1988, 366), illiterate and unemployable peasants live in cardboard-box slums without proper food, fresh water, sewers, or garbage collection. Is it little wonder that diarrhea and associated diseases kill 4 million children younger than five each year in third-world nations (Timberlake and Thomas 1990, 128)?

Even in the rich first-world countries, serious problems in living exist. There is poverty, malnutrition, homelessness, substandard living conditions, unemployment, underemployment, debt, maternal and infant mortality, chronic illness, divorce, crime, physical, sexual, and emotional abuse, substance abuse, loneliness, depression, anxiety, and increasing stress (see Levine and Perkins 1997). There is violent crime, too. In the United States, for instance, 14,873,000 violent crimes were reported in 1991 — 1,912,000 were murders, rape, robbery and aggravated assaults (Levine and Perkins 1997, 18).

Additionally, there is illness, both acute and chronic. There were 19.1 million Americans with heart conditions in 1990, for example, 1.13 million new cases of cancer diagnosed in 1992, 6.2 million people with diabetes in 1991 and 27.1 million people with high blood pressure, 6 million people with asthma, 4 million people with epilepsy, 750,000 with cerebral palsy, 500,000 with multiple sclerosis, and 200,000 with muscular dystrophy (Levine and Perkins 1997, 23). Likewise, the United Kingdom saw significant problems in living, with many people regularly experiencing stressful events. Panic attacks, phobias, and depression, for example, struck 31 per cent of the population in 1986, an increase from 22 per cent in 1977 (James 1997).

In short, there is human suffering, social disparity, overpopulation, overconsumption, overexploitation, excessive waste generation, resource shortage, and ecosystem collapse. There is increased "poverty, landlessness, homelessness, violence, alienation, and, deep within the hearts of many people, extreme anxiety about the future (Mander 1996, 4)." It is the plight of the modern industrial world. We are losing touch with the land and we are losing touch with each other. And so it is in rural North America.

Change Comes to Rural North America

It is in the rural world that human connections with the land and each other are especially evident. Human relationships with the land and each another have traditionally been meaningful, intimate, and long-lasting. Moreover, in the rural countryside, human impact on the land is obvious and the role of sound stewardship is apparent.

That said, rural North America is encountering problems experienced planet wide. Indeed, change has swept into the rural countryside. Industrialization, urbanization, and bureaucratization (Stein 1960, 5) accompanied by technology have transformed nearly every aspect of the rural economy, ecology, and social life (see Flora et al.

1992; Rogers et al. 1988). Machinery, transportation, and communication systems have launched commercial farming and improved the rural standard of living, but also have disrupted the well-being, health, and sustainability of rural communities. Industrial development has brought jobs to rural areas, but also has degraded the local ecosystem. What's more, advanced communications have enlightened rural communities and mass media has urbanized rural values.

Take North America's agricultural society, for example. Where subsistence farming initially formed the basis of rural life, a highly mechanized capital-intensive agricultural industry now exists, linked to and dependent upon outside products and markets. Where small settlements once stood along rail lines, ghost towns now exist. And where homesteads once occupied every quarter-section of land, enormous fields now span. Moreover, a fragmented, drained, and poisoned countryside now exists where intact ecosystems once supported both human and other species. And dependency on larger centres, corporations, and government now exists where social interaction, mutual aid, and community autonomy once flourished. Indeed, like people planet-wide, rural North Americans are losing touch with the land and with each other.

The Significance of the Rural Community

Conventional solutions to these social and ecological problems fail us. They address symptoms not causes, sanction destructive behaviour, and even exacerbate ecological problems (Bookchin 1989). As a result, a creative new approach is called for. The time has come to view ecological problems as social problems ;see Bookchin 1980, 1990) and, therefore, to view ecological well-being as a function of social well-being. With this perspective as a basis, planned social change is the clear route to global well-being.

For it is within the local community that planned social change can begin. It is the local community where people can begin to regain control of their future (Wilkinson 1986, 1991). It is within this basic level of society that life is "real" — people live, love, and die — and that problems and solutions are concrete.

It is in the local community that people experience first-hand the intimate meaningful personal relationships necessary to good health and well-being. It is in the local community that people can measure the difference their presence makes in the lives of friends, neighbours, and fellow community members — where people can help people, old can teach young, basic needs can be met, and residents can enjoy a sense of belonging and experience a sense of place. It is in the local community that people can realize the impact they have on the land and where they can begin to understand their responsibility and role in its care and repair. Above all, it is in the local community that people can effectively participate in decisionmaking, make educated and meaningful choices, and demand and receive political accountability.

That said, how do local people regain control of their destiny? How do rural-community residents begin to address change and what must they do to steer it rather than resist it? For as the literature tells us, whether planned or unplanned, change *is* resisted. Wrote Patricia Niles Middlebrook (1974, 45):

> No matter how uncomfortable and miserable an individual is (within limits), he is more comfortable with the known than the unknown. People who have been following fixed procedures for a long time may feel threatened by any suggestion to modify what they are doing. Further, they may have an investment in the status quo. If the present system is working well for them and yielding good economic rewards, why should they want a change?

Consequently, an understanding of community change, challenges, and well-being can help rural community members determine their community's future.(Sim 1988). Although the process of planned social change itself is complex and incompletely understood (Baron and Byrne 1991; Levine and Perkins 1997), it has been said that it requires the understanding of social setting complexities, the recognition of the opposition, and the creation of methods for dealing with that opposition (Sarason 1971). That is, for planned social change to be successful, we first must understand global society.

In other words, for rural community members to successfully determine and develop the community of their choice, they must understand the rural society in which they live, its strengths and its weaknesses. "The starting point for action to accomplish change . . . is the step of problem definition," wrote Levine and Perkins (1997, 417). Moreover, they must understand the natural world they inhabit if they are to work toward total community well-being. Indeed, they must understand both the facts of their community and the perspectives of the people within it. These facts plus peoples' perspectives form the concrete reality that drives individual and collective choices, noted Brazilian educator Paolo Friere. It is that reality that is the foundation of social change.

Facts Plus Perspectives Determine Planned Social Change

What are these facts and perspectives that form the foundation of social change? Facts are what is objectively verified. Perspectives are the expression of our "impinging natural and social reality (Alexander 1990)." They entail our views and experiences both (Morgan and Krueger 1993). According to Bem (1970), perspectives are our viewpoints of the world, the expression of our values, beliefs, and attitudes that are founded on our thinking, feeling, behaving, and interacting with others. Perspectives are important for — just as Maser (1988) pointed out — thought precedes action where social change is involved. As John Adams observed, "The [American] Revolution was in the hearts and minds of the people . . . This radical change in the principles, opinions, sentiments, and affections of the people was the real American Revolution" that preceded the Revolutionary War (Adams quoted in Alinsky 1971, xxii). Indeed, rural residents' perspectives determine the choices residents make and the subsequent path they collectively follow (Flora et al. 1992) — and, ultimately, the fate of the natural world upon which they depend. Perspectives shed light on the causes of and subsequent solutions to rural problems.

If facts plus perspectives form the foundation of planned social change, then, understanding of the history, the land, and the people's perspectives forms the foundation of planned social change. Specifically, planned rural change requires an understanding of the land because it is the land upon which community health and well-being is interconnected and upon which it depends (see Berry 1972; Goldsmith et al. 1990; Maser 1997; Rowe 1990; Sim 1992). Furthermore, planned rural change requires an understanding of the history as well because — in both time and space — the land and its inhabitants of today are inextricably connected to the land and inhabitants of the past and future (Macfarlane 1977; Rowe 1990). And, finally, planned rural change requires an understanding of perspectives because perspectives determine the direction the community travels (Flora et al. 1992).

An Ecological View of Community Development is Needed

But such understanding in any rural community is rare. The "facts" of the rural world have been insufficiently compiled and the perspectives of rural residents have been insufficiently researched. Moreover, the increasing rural population, changing rural world, and escalating ecological and social problems prompt the contemplation of rural well-being.

Granted, the topic has received some address in the literature — but specialization within academic disciplines has produced a myopic viewpoint. For example, the field of Rural Sociology has looked primarily at the human component of rural living, failing to address ecological needs (see Field and Burch 1991). Community Development also has looked at primarily human needs, stressing "development" over "community" (Christenson, Fendley, and Robinson 1989) or, in other words, economic growth over social well-being and ecological sustainability. Moreover, the field of Geography, which examines both the physical and social characteristics of place, is human centred as well. Conversely, the field of Conservation Biology arises from a strong ecological viewpoint. Indeed, what is missing is a holistic and balanced viewpoint of rural communities, a perspective that considers the "important vestiges of the past (Sim 1988)" as well as community resources and talents of all kinds, natural and human.

To date, however, academic fields and theoretical perspectives insufficiently address the equally important roles that the land and the people together play in community well-being. The field of Community Development, for example, contains no perspective of community development grounded both in the land's and in the people's well-being (see Christenson et al. 1989). What's more, both theoretically and practically, that field has centred on the technical assistance model of community development, relying on outside "experts" to lead change and on science and technology to solve problems. Less frequently has it employed the self-help model. The self-help model of community development acknowledges the importance of community members in instigating and forging change, acknowledging community talents, resources, perspectives, and empowerment, and striving to utilize full community capacity.

All in all, what is wanting is a perspective of the rural local-community grounded in community well-being and rooted in the fundamental interconnection and interdependence between humans and the land. What also is wanting is a theoretical and practical perspective that is based upon the role that the rural-community can play in planned social change toward global well-being. In brief, an ecological perspective of community development is called for.

The Research Question

Such an ecological perspective first requires an understanding of facts and perspectives of the rural community, an understanding of the concrete reality that rural residents face. What are the "facts" — geologic, ecological, economic, and social — of the rural community and what are its residents perspectives? This was the central research problem. What experiences and perspectives do rural residents hold relevant to local community change, challenges, and well-being? These questions require address before planned social change can transpire at the rural-community level. They are the concerns investigated by this study.

More specifically, this study examined one small rural community in transition. It contemplated the facts and perspectives of Rochester, Alberta, a community located 100 kilometres north of Edmonton. Exploring community change, challenges, and well-being, it asked the research question, **What do Rochester, Alberta residents want for and from their community?** Subquestions entailed the following:

1. What role does the Rochester community play in the lives of Rochester community members?
2. What do Rochester community members consider to be the ideal community?
3. What do Rochester community members consider to be their community's strengths?
4. What do Rochester community members consider to be their community's weaknesses?

Research Objectives

This investigation entailed applied research, seeking to "provide useful knowledge that can be applied to a pressing problem (Miller 1991, 3). As stated above, that problem was to understand change and residents' perspectives regarding change, challenges, and well-being of one rural community amid unprecedented transition. Its objectives were:

1. to begin to understand the geologic, ecological, anthropological, and social history that shaped and continues to shape the Rochester community.
2. to begin to understand the Rochester community members' range of experiences and views about the region and community they inhabit.
3. to generate analytical questions, propositions, and hypotheses for further study at Rochester and elsewhere.
4. to begin to contemplate an ecological perspective of community development that would form the basis for social change toward global ecological and social well-being
5. to instigate thought, discussion, and interaction among Rochester community members about the changing structure, role and value of their community

6. to provide Rochester community members the opportunity to begin to gain a deep and comprehensive understanding of their community.
7. to provide Rochester community members a foundation of understanding from which a community vision and collective action can be established.

Research Assumptions

The assumptions upon which this study was based are as follows:

1. An ecological and social crisis is upon us. Its resolution requires not a technological fix but, rather, social change at the most basic level of society, the community.
2. Integral to community well-being are
   - community resources, talents, and perspectives.
   - community members' ability to make decisions that impact their lives and futures, to act collectively on those decisions, and, thus, to control their destiny.
   - the good health of the land that the community inhabits.
3. People control their community's resources — and, therefore, their perspectives and experiences regarding community resources and well-being is important.
4. The facts and perspectives of a community provide the concrete reality that is basis for social change.
5. A local Rochester community exists.
6. Focus group respondents addressed focus group questions candidly and truthfully.
7. The community members in the study were aware of the strengths and weaknesses of the Rochester community, and therefore made informed statements about the community.

Research Limitations

I have lived much of my life in Rochester. It is the home I've always loved and frequently inhabited. As a result, this study was limited by my own experiences in the Rochester community and by my own perspectives of it. Furthermore, it was limited by my relationship with Rochester residents. I know many community members as friends and many more as acquaintances. I know many residents' personalities, attitudes, and behaviours. And, too, they know mine.

To be sure, this study was also limited by my profile within the Rochester community. At the onset of this study, for example, I was known throughout Rochester as a person dead-set against industrial logging and Mitsubishi's Alberta Pacific Forest Industries. As Chapter Three describes, however, every precaution was taken to safeguard against these limitations and those that follow.

That said, this study was also limited by weaknesses inherent to the methodologies utilized. Focus-group interviews were limited by their structured format, moderator efforts to follow questions and to keep discussion orderly, participant personalities, respondent abilities to express views, and respondent concerns about how they're perceived by other participants and the researcher, for example. Moreover, focus groups were limited by their potential to create more extreme viewpoints.

Additionally, this study was limited by its potential to change behaviours and attitudes. I was intruding upon my study group — and, therefore, possibly distorting residents' experience. According to Bogdan and Biklen (1992), however, approaching people with a goal of trying to understand their viewpoint, while not perfect, least distorts the subject's experience.

Other limitations existed as well. More specifically, results of this case study are not generalizable to a population or universe; they are generalizable only to theory. Rarely are results of a case study *ever* generalizable to a population or universe — however, rarely is such generalizability the intent. Instead, case studies strive for the expansion of and generalizability to theoretical proposition; they seek to acquire information leading to propositions and hypotheses that develop, expand, and generalize theories.

> . . . It is universally recognized, even by those who scarcely allow it any other role, that a case study may suggest hypotheses, interpretations, empirical uniformities for future (quantitative) investigation. It does so by showing that things are so, or that such an interpretation is plausible, in the particular case, and so that they might also be so in other cases.
>
> Jennifer Platt (1988)

Thus, this study did not attempt to generalize research findings of the Rochester community to other rural communities — although its findings may prove of interest. This study was limited to the Rochester community and to *rural* (versus urban or suburban) community well-being.

Furthermore, this study did not attempt to statistically extrapolate focus-group results to the Rochester community. Participants of focus-group interviews did not constitute a random sample of the population — and, consequently, their responses could not be statistically extrapolated to the Rochester community at large. Rather, focus-group responses provided a range of perspectives within the Rochester community.

Nature of the Case-Study Site

Description of the Case-Study Site

One local community is Rochester Alberta , the case-study site of this investigation. It is a small rural agricultural community in north-central Alberta, Canada (Fig. 1.1). Located approximately 100 kilometres north of Edmonton, it encompasses some 385 square kilometres and comprises the southernmost community in the County of Athabasca. The townsite itself has a population of approximately 100 people. Another 500 people live outside of the town but within what residents consider community boundaries. In all, just under 600 residents inhabit the community of Rochester, Alberta. Further description of the Rochester community composes Part I of this dissertation.

Justification of the Case-Study Site

Why was Rochester selected as the case-study site? While it is true that "a typical city, strictly speaking, does not exist (Lynd and Lynd 1929, 3)," Rochester — like Middletown of Lynd and Lynd's classic study — does share a number of features with other communities of its type. For example, like other small rural agricultural communities, Rochester is in transition (see Flora et al. 1992; Rogers et al. 1988). It has a settlement history similar to hundreds of Canadian prairie settlements (Zimmerman and Moneo 1971), and it is in ecological, economic, and social flux today. Like so many settlements that have formed and transformed, the socio-economic structure, role, and value of Rochester has changed drastically.

Furthermore, Rochester is a community impacted by industrial society. The agricultural industry, timber industry, petroleum industry, and mining industry all operate within its geographic bounds. Additionally, the community lies in the shadow of one of the world's largest transnational corporations (Mokhiber 1996). Mitsubishi Corporation — a transnational corporation fingered as one of "the ten worst corporations of 1996" by Ralph Nader's *Multinational Monitor* — recently built the world's largest bleached kraft pulp mill just 70 kilometres northeast of the Rochester hamlet.

In short, Rochester, Alberta offered an ideal opportunity to explore a rural community in transition. It provided the chance to examine a community amid ecological, economic, and sociological change, and it provided more. Specifically, it provided easy access for study, both in location and in context. Located an hour-and-a-half north of Edmonton, it is easily reached from the University of Alberta. Moreover, because Rochester is my home town, it provided the unique opportunity for exploration without concern about entry into community. Indeed, one elderly resident said to me, "You know, you're the only one who could study this community. We wouldn't let any *outsider* come and ask questions." Although home-town familiarity created concerns about validity — concerns addressed in chapter two of this dissertation — it also provided an opportunity for unique and rich insight unavailable to a researcher from "outside."

Significance of this Study

This case study provided a preliminary understanding of the concrete reality of the Rochester community — an understanding of facts plus perspectives fundamental to planned social change. Furthermore, it provided a concrete example of what otherwise may be abstract, nebulous, and overwhelming global problems: it revealed real incidents of human behaviour that allow clear and deep thought about the human condition (Bogdan and Biklen 1992, 49). And, too, this investigation provided a concrete example of the interconnection and interdependence between humans and the living planet and between the past, present, and future — a concrete example from which theory can be developed. Moreover, reporting resident viewpoints, this study began to fill the gap in the literature regarding residents' perspectives toward rural community living and rural-community well-being.

What's more, this case study offered a chance to deliberate rural community action grounded in the reality of the people who live, love, and die in the local community rather than upon the point of view of the experts who "know." Accordingly, it presents rural-sociologists and community practitioners alike a different "take" on their disciplines. For example, it provides Community Studies a new view of community well-being — a paradigm grounded in the people and the land together, recognizing the importance, interconnection, and interdependence of the social world, economic world, and natural world. It presents the field of Community Development a brick in the foundation of an as-yet undeveloped theory of ecological community development. Finally, this study unearthed analytical questions, propositions, and hypotheses for future investigation regarding community change, challenges, and well-being and planned social change.

What's more, this study has merit for the people themselves. It provided an opportunity for Rochester residents to begin to gain a deep and comprehensive understanding of their world and their community. The process itself instigated contemplation and awareness, allowing residents to share, listen, and respond to a wide-range of views and experiences in focus-group interviews and to share and consider perspectives in casual conversation. And, too, this dissertation and follow-up community presentation helped to instigate community discussion and reflection regarding Rochester's past, present, and future. All in all, from this study came information upon which to begin to work toward a healthy living planet — information upon which to begin to resolve present ecological and social problems based upon community control.

Organization of the Dissertation

From a brief summary of global ecological and social problems in the Introduction, this dissertation focuses to an exploration of conditions of one small community — and, then, it pans back again to the global picture. It entails two parts. Part One chronicles the formation and transformation of the geographic region that residents said compose the Rochester community: the "facts" of people's reality. Part Two explores Rochester residents' perspectives about their community's changes, challenges, and well-being.

Ten chapters result. Chapter 1 is the introduction. Orienting the reader to both the study and the report, Chapter 1 introduces the research problem, presents a statement of the research problem, describes objectives, and briefly profiles the case-study site and its relevance to the research problem. Moreover, Chapter 1 describes the significance, assumptions, and limitations of the study. Finally, it describes the organization of the dissertation.

Chapter 2 is the literature review. It presents a review of work relevant to the four themes that emerged from data collection.

Chapter 3 describes the methods and design of this study. It presents the research question and subquestions, defines terminology, and presents assumptions, hypotheses, validity concerns, and ethical considerations. Furthermore, it presents the rationale behind this exploratory case study. Finally, Chapter 3 details how the research was accomplished — what the data consist of and how the data were collected, organized, and analyzed.

Next is Part One of the dissertation — "From the Past the Future Comes" — describing the ceaseless change the Rochester region has endured. Chapter 4 describes the formation of the land. Chapter 5 describes the arrival of humans and the recent establishment of the Rochester community. Chapter 6 describes the transformation of the Rochester community. Chapter 7 describes the natural ecology of the community and the impact on it that humans have had.

Part Two of the dissertation follows, entitled "From Perspectives the Future Forms." It centres on focus-group findings. Chapter 8 describes the categories of responses that surfaced during focus group discussion, while Chapter 9 describes the broad themes that emerged from these categories of responses, providing an interpretation and a discussion of each.

The last chapter, Chapter 10, presents this study's summary and conclusions. Integrating Parts One and Two of this dissertation — the facts of the community and the perspectives of the residents — it ponders the concrete reality of the Rochester community. First, it summarizes this study's methodology and results. Then, it presents and discusses conclusions, addressing the general research question and nesting answers to the subquestion within that presentation. Next, it presents implications of research to the Rochester community and recommendations for the community as well. That completed, Chapter 10 moves on to the topic of planned social change. With research results as its basis and, thus, Rochester as a concrete example, this chapter contemplates the implications of research to global well-being, examining research implications both to the planet's ecological and social problems and to an ecological perspective of community development. It next discusses the address of research objectives and, then, provides recommendations for further study. The chapter — and this dissertation — ends with my concluding remarks.

2 RESEARCH DESIGN AND METHODS

Scientific research is an art, not a science

W. H. George
The Scientist in Action: a Scientific Study of His Methods

[Content analysis] has a mixed emotion with no name. On one hand, it necessarily involves dealing microscopically with detail, and can be irritatingly repetitive. On the other, you hold the big picture in the back of your mind as you work with the detail, and when you see coherence — how the detail informs the big picture — and discover something you would never have guessed, it's a pure rush of discovery and you understand why you did what you did. (And, sometimes redraw the plan for next time.) Surely you feel gratified now over all that time you spent preparing.

Carl Urion
letter to the author
18 April, 1997

I must begin with a good body of facts, and not from principle, in which I always suspect some fallacy.

Charles Darwin
Life and Letters of C. Darwin

This study contemplates the concrete reality of a small rural agricultural community in north-central Alberta. Concerned about ecological and social problems of the planet and of rural communities in particular, I chose a research design and methods suited to exploring the rural-community condition. Specifically, I chose an exploratory case-study design, qualitative research including focus-group interviews, content analysis, and inductive reasoning.

Exploratory research is the initial investigation of a study object. Helping to deepen the understanding of a setting, exploratory research provides "insight into the structure and dynamics of a whole situation, possibly even setting the stage for further research (Zeisel 1991, 60)." In this study, exploratory research provided insight into community change, challenges, and well-being. It described the facts of one rural community and explored the perspectives of residents toward that community. Together, facts and perspectives provide the concrete reality that is a basis for social change; together the facts and perspectives of the Rochester community can provide a foundation upon which to contemplate a new community development perspective. It would be a practical as well as theoretical perspective, grounded in community well-being and rooted in the interconnection and interdependence of the living planet.

As this study unfolded, six major phases of research ensued. The six phases were

1. the initial literature review from which this investigation emerged.
2. the design of the case study.
3. the determination of local community boundaries.
4. the collection and description of "the facts" of the community — that is, of the land and history or, in other words, the region, settlement, and community.
5. the exploration of community member perspectives toward community change, challenges, and well-being.
6. a focused literature review revolving around the constructs that emergent themes encompassed.

It is around these phases that Chapter 2 revolves.

Phase One of Research — Reviewing the Literature

Having been raised by a wildlife ecologist, having received my formal education in ecology, and having worked as both an ecologist and an environmental educator, I was well aware of ecological problems facing the planet. Then, in 1990, I became aware that global problems were Rochester problems. For when the Alberta Government and Japan's Mitsubishi Corporation together developed Alberta-Pacific Forestry Industries Inc. (ALPAC) — "the world's largest bleached-kraft pulp mill" — I realized that the ecological and social problems I'd battled passionately were Rochester problems all along. Like every other place on the planet, my own homeplace was not immune.

For Western Canada Wilderness Committee Boreal Forest Campaign, I (Keith 1994) wrote,

> We in ALPAC country have been shaken from our innocence. Firsthand, we've seen that the will of the people is no match for the wealth of transnational corporations. Firsthand, we've seen the power of greed.
>
> With each truckload of trees, thinking people in Athabasca County now contemplate how money sways politicians, businessmen, neighbours, and friends. We watch as the line between government and big business blurs. And we ask: Is democracy just another commodity to be sold to the highest bidder?

At first, I planned to investigate the social impacts of a transnational corporation and its mega-mill on surrounding local communities. But when ALPAC's "integrated environmental resource manager" repeatedly pressed to sit on my supervisory committee, when ALPAC began funding University of Alberta research, and when ALPAC began promoting its timber practices as "ecosystem management," I became concerned about corporate conduct. It was manipulation of science, scientists, and the public, I concluded — and I questioned what would be gained from yet another quantitative study of social impacts. Sociological studies already had documented negative impacts of incoming large industry on local communities. Moreover, I grew increasingly aware that, once all was said and done, we'd argue over decimal points — with ALPAC-sponsored scientists promoting their research and paradigm and me supporting mine.

Something new was called for.

I embarked upon an exploratory literature review to better understand the condition of the planet and the viewpoints regarding that condition. I explored the topics of ecology, forest ecology, deep ecology, social ecology, conservation biology, community studies, community development, sociology, rural sociology, economics, and bioregionalism. I read journals such as *Environmental Ethics, The Ecologist, Democracy and Nature, Rural Sociology, Community Development Journal,* and *Journal of the Community Development Society.* I read articles and popular books produced by government, corporations, and non-profit organizations and books written by scientists, philosophers, and concerned citizens. Among the authors I found most enlightening were Arne Naess (e.g. 1992), Murray Bookchin (e.g. 1980, 1987, 1990), Alvin Toffler (1980), Edward Goldsmith (1990), Mander and Goldsmith (1996), Alex Sim (1988), Cornelia Butler Flora (1992), and Saul Alinsky (1971).

It wasn't long before I realized tremendous discussion and an array of opinion surrounds the condition of the planet. I soon understood that society was experiencing a paradigm shift from an industrial human-centred paradigm to a paradigm acknowledging the interconnection and interdependence of the living planet. Corporations, government, and "the almighty dollar" lay at the basis of global ecological and social problems, I concluded, with the global economy fanning ecological and social misery and usurping the ordinary person's self-respect, rights, control, and empowerment. Moreover, as time passed, I watched the new paradigm move in: environmental issues became prominent news items, for example, and ecological concerns became plots for novels. And I watched as conflict escalated between those who saw what they had to lose and those who saw what they had to gain.

Contemplation led to the conclusion that ecological and social problems are one in the same. The route to global well-being is social change, I decided, and the place to start is at the local community. So it was that I resolved to research the ecological and social condition of the local rural-community — a place where industrialization, urbanization, bureaucratization, and technology have produced unprecedented change and where ecological and social problems arise. As my case-study site, I selected my own home community of Rochester, Alberta.

All in all, from its first glimmer as a topic to this report, this study took nearly five years. Throughout its duration, I inhabited the Rochester community, either full-time or part-time. More specifically, during both the first and last year-and-a-half of research, I lived full-time in Rochester, and in the two years in-between I lived part-time in the community. The contact that resulted with Rochester people and land plus the contact I'd had during my previous many residencies (I've been a frequent inhabitant since childhood.) provided me first-hand information about the Rochester region, Rochester history, and Rochester residents. In line with Bonner (1997) and others (Lynd and Lynd 1929; Whyte 1981), I considered this information valuable context for interpretation of data throughout the study.

It was a case-study design that I utilized to study the Rochester community. According to Yin (1989 23), a case study is the detailed examination of a single internally complex object, an "empirical enquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used." According to Zeisel (1991 65), a case study entails the determination of an object's boundaries and — within those boundaries — the description, exploration, or explanation of the object's development, of its contextual influences, of its elements, and of the relationships among these elements.

In line with Yin's (1989) comments, this case study was both exploratory and revelatory. It was exploratory because it asked a "what" question — What do Rochester, Alberta residents want for and from their community? — with its goal being to develop analytical questions, hypotheses, and/or propositions for further inquiry (17). An exploratory approach was necessary because little academic information existed regarding both the facts of the rural world and perspectives of rural residents toward community change, challenges, and community well-being — and certainly none existed regarding the Rochester community specifically. This case study was revelatory as well because it investigated a "phenomenon found elsewhere but previously inaccessible to scientific investigation (48)." That phenomenon was both the concrete reality of the rural community — its facts and its residents perspectives regarding community change, challenges, and well-being. A revelatory approach is worthwhile both for its descriptive information and for showing how future investigation can be done and, thus, stimulating research and perhaps action, explained Yin (1989 48). The major limitation of the case-study design is low generalizability.

The Case-Study Protocol

Employing Yin's (1989) case-study-design recommendations, I found other case-study references useful to this investigation as well. For example, I read the works of Grosof and Sardy (1985), Hamel (1993), and Platt (1988). Furthermore, I found numerous community studies enlightening, including those by Bonner (1997), Burnet (1951), Lynd and Lynd (1929), Gans (1967), Rayside (1991), Vidich and Bensman (1958), and Whyte (1981).

It was a qualitative research that I undertook to understand the Rochester community. In the words of rural sociologist Alex Sim (1988 15): "Understanding the consequences of change is a qualitative matter." Qualitative research has been determined useful in the discovery of important questions, processes, and relationships (Bogdan and Biklen 1992). According to Berg (1995 2):

> Qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and description of things. In contrast quantitative research refers to counts and measures of things.

Within this qualitative research project, I utilized an inductive approach. Moving from particular instances to general principles, from facts to theories, induction entails starting with observed data and developing a generalization that explains the relationships between the objects observed. It is important to the generation of new theories. Explained Beveridge (1950, 114):

> Since deduction consists of applying general principles to further instances, it cannot lead us to new generalisations and so cannot give rise to major advances in science. On the other hand the inductive process is at the same time less trustworthy but more productive. It is more productive because it is a means of arriving at new theories, but is less trustworthy because starting from a collection of facts we can often infer several possible theories, all of which cannot be true as some may be mutually incompatible; indeed, none of them may be true. . . . Inductions are usually arrived at not by the mechanical application of logic but by intuition, and the course of our thought is constantly guided by our personal judgment.

I utilized an inductive approach similar to that employed by Strauss and Corbin (1990) and Glaser (1992). I followed fieldwork strategies recommended by Berg (1995) and Bogdan and Biklen (1992). Moreover, I utilized multiple data-gathering techniques. The use of multiple data-gathering techniques or "triangulation" ensures mutual confirmation of measures and validation of findings (Berg 1995), refines, broadens, and strengthens conceptual linkages (Goetz and LeCompte 1984), and offers perspectives other than those of the investigator (Borman, LeCompte, and Goetz 1986). As well, the use of multiple data-gathering techniques helps to obtain an in-depth understanding (Zeisel 1991), helps to address "a broader range of historical, attitudinal, and observational issues (Yin 1989)," and helps to uncover special problems (Zeisel 1991).

What's more, during this study, I leaned on key informants. Throughout this investigation, I solicited the advice and insight of people that — from my own experience — I knew to be particularly knowledgeable about the Rochester community (Rogers 1960, 141). My selection of key informants was confirmed during informal conversation with a number of Rochester residents.

The Research Question

This study asked the general research question **What do Rochester, Alberta residents want for and from their community?** Additionally, it asked the following subquestions:

1. What role does the Rochester community play in the lives of Rochester community members?
2. What do Rochester community members consider to be the ideal community?
3. What do Rochester community members consider to be their community's strengths?
4. What do Rochester community members consider to be their community's weaknesses?

Definition of Terms

From the research question and subquestions there arose a number of terms requiring definition. There was the term community, for example, that entailed an expanded definition of that offered by Christenson, Fendley, and Robinson (1989). More specifically, **community** was defined as the human inhabitants of a geographic territory who are "involved in social interaction and have one or more psychological ties with each other and with the place in which they live (Christenson, Fendley, and Robinson 1989, 9)" as well as the land that these people inhabit. **The Rochester community** was similarly defined, with the geographically bounded area being that area which Rochester residents themselves delineated. **Rochester residents** and **Rochester community members** were the individual people inhabiting the Rochester community, aged 18 or older.

Two additional terms required definition. They were "the Rochester settlement" and "the Rochester region." **The Rochester settlement** was the land and the people within the fixed and bounded Rochester locality before psychological ties were formed. **The Rochester region** was the land itself — the geography and ecology of the colonized locality, the foundation of the Rochester settlement and community. Why such differentiation?

As I researched the history of the Rochester community, I soon realized that the term community was inadequate. Indeed, it was too limited to describe the events of the past much less those of the present and future. I was reaching back to a time when no community as defined by this study existed but a settlement was being formed and even farther back to a time when Nature untouched by European civilization endured. Clearly, the unfolding saga required additional terms. I chose "settlement" and "region," recognizing they were different from — yet interconnected to — "community" in time, space, and function. Community as defined by the community entailed psychological ties; settlement entailed just geographic locality; and region comprised the geologic and ecological foundation of them both.

Hypotheses

The goal of an exploratory case study is to generate propositions or hypotheses for testing (Yin 1989). An hypothesis is a predictive statement that is tested statistically (Grosof and Sardy 1985), and a proposition is a conjecture, a predictive statement formulated in terms of theoretical constructs and supported or refuted by the evidence (Grosof and Sardy 1985). Because there is no foundation of empirical knowledge upon which to base hypotheses or propositions, the exploratory case study offers none at the onset (Yin 1989). However,

> it is universally recognized, even by those who scarcely allow it any other role, that a case study may suggest hypotheses, interpretations, empirical uniformities for future (quantitative) investigation. It does so by showing that things are so, or that such an interpretation is plausible, in the particular case, and so that they might also be so in other cases (Platt 1988).

This case study was no exception. An objective was to generate hypotheses for future study. Offering no hypotheses or propositions in advance, this study generated hypotheses after data analysis (see Grosof and Sardy 1985; Platt 1988; and Yin 1989).

Although it tested no hypotheses or propositions, this study did observe criteria used to judge a case study as exemplary and successful (Yin 1989). Those criteria are the following:

- The case study is significant.

The individual case must be unusual and of general public interest, and the underlying issues must be nationally important, in terms of either theory or policy or both.

- The case study clearly identifies assumptions.
- The case study meets objectives
- The case study answers the research problem question and subquestions.
- The case study meets the validity and reliability criteria.
- The case study consistently follows the research design, methods, and implementation, making alterations and revisions after initial stages of study only under stringent circumstances.
- The case study is complete.
  Research must give the boundaries of the case explicit attention, must convincingly show that the researcher expended exhaustive effort in collecting the relevant information, and must be concluded only when the researcher has gathered all information.
- The case study considers alternative perspectives.
  Research must examine evidence from different perspectives, anticipating alternative interpretations and even advocating alternative interpretations as forcefully as possible, and showing — empirically — the basis upon which alternative interpretation can be rejected.
- The case study displays sufficient evidence.
  Research must judiciously and effectively present the most compelling evidence so that a reader can reach an independent judgment regarding the merits of analysis. Evidence should be presented neutrally, with both supporting and challenging information, and should be accompanied with some indication that the researcher attended to the validity of the evidence.
- The case study is composed in an engaging manner.

The Unit of Analysis

This investigation's unit of analysis was the community. That said, however, this study explored Rochester residents' perspectives to better understand the community, utilizing focus-group interviews to learn participants' experiences and viewpoints. In accord, an embedded unit of analysis — the individual — also existed (Yin 1989, 48). A single-case design with embedded unit of analysis is an appropriate design when a case is revelatory (Yin 1989).

Phase Three of Research — Determining Community Bounds

That sociologists debate the existence of territorial communities today was of no consequence to this study. Based upon my previous experience and discussions with Rochester residents, I made the assumption that a local Rochester community does exist. Previous encounters revealed that Rochester-area residents viewed a geographically bounded community as existing — and, throughout this study, their viewpoint never wavered. However, just where the local Rochester community started and ended provided contention.

For clarification, I turned to Rochester-area residents themselves. It was clear to me was that if this study intended to understand Rochester residents' perspectives, then it must honour residents' perspectives from the very beginning. Rochester community borders, I decided, must be determined by the people who know them best — the people who live within the Rochester community. Although the process might appear straightforward, it certainly was not.

To be sure, community geographic boundaries are hazy today (Wilkinson 1986). Years ago, when rural Canadian communities were small, dispersed, isolated, and autonomous, geographic boundaries were clear cut and community membership was obvious. People were active members of the community in which they lived. By simply examining the direction wagon ruts turned from a farm when they entered a main road, a sociologist could determine community borders (Galpin 1915).

But no longer. Dirt roads now are paved roads; self-sufficient communities now are mutually interdependent communities (Zimmerman and Moneo 1971); and local interaction now is far-reaching and complex. Just as rural residents no longer circulate in one distinct area, rural sociologists no longer can draw definitive community bounds. In fact, this study showed that even the residents themselves find it difficult to discern their community's periphery. Consequently, it was throughout the initial phases of this project that I worked to determine Rochester boundaries. It was only when I instigated Phase Five — community member perspectives — that I at last settled on Rochester's geographic bounds; it was only then that the recruitment of focus group participants necessitated distinct community borders.

The following paragraphs outline the procedure I employed to determine Rochester community boundaries. That procedure included the advice of key informants (Rogers 1960, 141). These informants — most of whom resided in what later was determined to be the Rochester community — indicated boundaries that triangulation via my own observations and additional conversations with some periphery-living residents confirmed.

Residents Define Community Boundaries

Armed with maps of both the Westlock Municipal District and Athabasca County, I informally approached some Rochester-area residents, asking them to draw a line around what they considered the Rochester community. Everyone quickly ascertained that the Rochester hamlet was the core. But no one could confidently determine the community periphery; in fact, most people were confounded.

Consequently, I revisited my definition of community: "'the human inhabitants of a geographically bounded area that are 'involved in social interaction and have one or more psychological ties with each other and with the place in which they live (Christenson, Fendley, and Robinson 1989, 9)' as well as the land that these people inhabit." I contemplated the role that "social interaction" and "community spirit (Lee and Newby 1983, 57)" together play in defining community borders. I asked myself: Who does business at Rochester — and where do they live? Who works at Rochester — and where do they live? Who receives services at Rochester? Who chooses to have a Rochester mailing address? Who belongs to and who is active in Rochester community organizations? Who attends Rochester functions? *And where do these people live?* The answers to all of these questions produced the same blurry Rochester-community periphery. So, I turned to "psychological ties." Who do residents consider to be Rochester community members — and where do these people live? Who considers himself or herself a Rochester community member — and where does he or she live? Ideally, those people at the fuzzy perimeter who consider themselves Rochester community members should be included in the geographic locality called the Rochester community, I decided — and everyone who does not should be excluded.

Again armed with maps, I returned to community members, seeking the advice of a store clerk, a former postmaster, some Rochester Agricultural Society members, school personnel, local business people, and just plain residents — old and young, long-time residents and new residents. This time I asked about community membership rather than community boundaries, stressing sense of communality as a prerequisite. Without a doubt, people recognized that there existed a sense of communality within a certain geographic region — but, again, geographic referent faded near the edges.

Nonetheless, each additional opinion brought a more finely-tuned map. After drawing a map that satisfied many area residents, all key informants, and myself, I visited persons along the established periphery, asking these persons to comment. Ultimately, what emerged was a map of the Rochester community that encompasses 385 square kilometres. Within it, the community population was figured by multiplying the number of households that I counted on the Athabasca County map by 3.2; 3.2 was Census Canada's estimate of the average number of residents per Athabasca County household. Rochester's resulting population equaled 585. Because my intent was not to statistically generalize focus-group results to the Rochester population, I did not estimate the adult population specifically.

In summary, Rochester residents delineated the local Rochester community based on this study's definition of community. The resulting perimeter was confirmed by my own observations as a Rochester resident as well as by the Rochester Agriculture Society membership list. The Rochester Agriculture Society is an umbrella group for a number of community organizations; all of its past and present members lived within the determined territory.

Community-Recognized Boundaries are Ignored

It is interesting to note that the resulting map fit no map drawn previously. It failed to fit the perceptions or needs of government, businesses, and other groups. There were, for example, the Athabasca County electoral-divisions map, the County of Athabasca School District turned Aspenview Regional School District map, the Rochester School bus-route map, and the Alberta Government Telephones turned Telus 698-telephone-exchange map — all furnishing their own unique version of the Rochester community. What's more, there was the Rochester community history book's conception of the Rochester community. Written by Rochester residents, *Rolling Hills and Whispering Pines* (Speers 1986) considered the community to be simply the area disregarded by other history books.

Traditional Boundaries Linger

It is interesting to note as well that Rochester community bounds excluded the towns of Tawatinaw and Perryvale. This, too, would be expected, at least according to traditional geographic boundaries. More concretely, Tawatinaw lies approximately eight kilometres south of the Rochester townsite. Once larger than Rochester, it today is all but a ghost town, located — like Rochester — on the old Highway Two. It always was geographically separate from Rochester, old-timers reported, having its own identity and history. In fact, it was seen as Rochester's rival, some people said and I remember. Even today, the differentiation exists, as exemplified by one elderly interviewee proclaiming that she is no Rochester community member — she is a resident of Tawatinaw!

What's more, the same pride exists in Rochester's second-nearest community of Perryvale. Perryvale is a town smaller than Rochester, located on the old Highway Two approximately nine-and-a-half kilometres northeast of Rochester proper. Like Tawatinaw, its exclusion came as no surprise considering traditional boundaries. Like Tawatinaw, too, Perryvale always was geographically distinct with its own sense of identity, its own stopping places, its own founding families, and its own railroad siding numbers. Even today, with little more than a general store to its name, it has its own postal delivery.

Phase Four of Research — Describing "the Facts"

The fourth phase of this study was to understand the history of the Rochester area. In line with the views of historians and some sociologists (Giddens 1987; Hill 1993; Mills 1961) that "one must understand the forces of the past to understand the present," I wanted to understand the forces of Rochester's past to understand its present. I wanted to understand the change that the area has experienced. According to Macfarlane (1977 35), doing so would require "a period of at least a hundred years . . . even if most of one's attention is concentrated on a shorter period."

For this reason, I went back ninety years to the arrival of the first settlers — the people who established what we now call the Rochester community. With that, however, came the realization of the significant roles played by the Athabasca Landing Trail in settlement, the land in homesteading, and the Tawatinaw Valley in community attachment. So, I decided to go back farther in time. As I researched the ecology of the land, the formation of the Valley, and the building of the Trail, I came to realize that the beginning of the Rochester community was, in fact, the beginning of time. It became clear to me that all things are connected — in time, function, and structure.

I examined the forces that shaped the Rochester community and that impinge on it today. These forces — the geology, ecology, anthropology, and sociology of the area — together with today's ecological, social, and economic conditions formed "the facts" that Freire claimed critical to social change. Critical, too, he said, were perspectives, and these I explored next.

Why Facts And Then Perspectives?

Why facts and *then* perspectives? I needed the "facts" to build a foundation of knowledge from which I could design significant and meaningful probing questions. Only by understanding Rochester's dynamic past could I comprehend the real and perceived social and ecological problems of today. Only by understanding Rochester's saga of change could I, myself, grasp the changes and challenges facing the community at present. Only when I, myself, had a grasp on changes and challenges was I well-informed enough to design questions that effectively explored community member perspectives about community.

What's more, this sequence of data-collection did more than supply the backdrop from which to design probing questions. It provided objectively verified information that, in itself, was "revelatory (Yin 1989, 48)" and, thus, valuable. This information was useful in the analysis of Phase Five of research, providing an important context of understanding of focus-group discussion.

Employing Multiple Data-Gathering Techniques

Phase Four of research employed numerous methods of data collection: personal observation, informal interviews, document review, archival review, and artifact examination. Personal observation and informal interviews with residents having first-hand knowledge of community history was of particular importance. To understand the history, the land, and policies past and present, I interviewed people other than just community members, however. I interviewed government employees and officials and corporate employees as well. And I attended pertinent lectures at the University of Alberta.

In addition, I employed a document review. I visited libraries at Rochester, Athabasca, Westlock, the Alberta government, Athabasca University and the University of Alberta, consulting scholarly and popular publications. Furthermore, I consulted *Edmonton Journal* and *Athabasca Advocate* news clippings, the Rochester School newspaper, Rochester community announcements; community-group membership lists; community calendars; aerial photos; maps; corporate literature; government literature; government applications like those regarding open pit mining; internal government memoranda; internal private organization reports; quarterly reports; Athabasca County's annual report; Alberta census information; and formal studies and official evaluations of the geology, ecology, anthropology, history, and sociology of the Rochester area.

I scanned some archival records as well. I looked at aging photographs, 1920 aerial photos, maps, scrapbooks, and even calendars. Important to my study was Rochester's *Rolling Hills and Whispering Pines* (Speers 1986) — the community-produced 1,237-page history book containing stories, poems, drawings, and photographs from the past and present and homesteader interviews. Moreover, I examined numerous artifacts, from farm machinery to decaying homesteads to original songs to residents' poetry.

Ultimately, what transpired was an in-depth chronology of the Rochester community, flowing in both time and topic from the Rochester region to the Rochester settlement to the Rochester community that only recently emerged. In my dissertation as in my research, this chronology or "saga" of the Rochester community precedes discussion of perspectives. It thereby presents the reader the background required to better understand community perspectives — in addition to providing half of Rochester's concrete reality required for planned social change.

Phase Five of Research — Exploring Perspectives

The fifth phase of this research project was to explore Rochester residents' perspectives toward community change, challenges, and well-being. I used focus-group interviews to explore the experiences and views of local residents. I used thematic content analysis to analyze focus-group data. Contact with residents and informal interviews before and after focus-group interviews as well as personal observation throughout the study helped in data analysis, providing context for responses and results.

Contemplating Focus-Group Strengths and Weaknesses

Because my research objective was to obtain as broad a range of perspectives as possible plus an understanding of their context (the factors or circumstances leading to a response), I selected the focus-group interview as my Phase Five research method. The focus-group interview is "a research technique that collects data through group interaction on a topic determined by the researcher (Morgan 1996, 130)." Used either alone or in combination with other research techniques, the focus-group interview has numerous strengths. Of particularly importance to this study was that the focus-group interview

- brings together several knowledgeable observers familiar with the social situation under investigation (Frey and Fontana 1993).
- is useful for exploring topics and generating hypotheses (Morgan 1991).
- is useful for revealing patterns (Einsiedel, Brown, and Ross 1996) and identifying major themes (Krueger 1993).
- provides insights into the sources of complex behaviours and motivations (Morgan and Krueger 1993).
- is flexible, allowing the moderator to probe topics and explore unanticipated issues (Krueger 1993).
- allows participants to question each other and to explain themselves to each other (Morgan 1996, 139).
- provides valuable data regarding the range of consensus and diversity among participants, the extent and nature of both participant agreement and disagreement (Morgan 1996, 139).
- allows the researcher to ask the participants themselves for comparison among their experiences and views rather than aggregating individual data in order to speculate about whether or why the participants differ (Morgan 1996, 139).
- is especially conducive to discussion and interaction when topics (like community change, challenges, and well-being) are of special interest and even daily conversation to participants (Morgan and Krueger 1993).
- promotes synergistic and meaningful interaction — "humane sensitivity, a willingness to listen without being defensive, and respect for the opposing views (Morgan and Krueger 1993)." Accordingly, it decreases inhibition,

increases candor, and uncovers emotions that other forms of questioning do not. Moreover, it is conducive to discussing emotionally charged issues.

- allows respondent to articulate motivations, feelings, attitudes, and opinions about which they may otherwise be unaware or unable to express (Morgan and Krueger 1993).
- is useful when working with people who historically have had limited power and influence (Morgan and Krueger 1993).
- can serve either as a basis for empowering participants or as a tool in action and participatory research, allowing participants to exercise a fair degree of control over their own interactions (Morgan 1996, 133).
- is especially useful when researcher and participants share the same goal (Morgan and Krueger 1993).
- is useful in applied settings where there is a difference in perspectives between the researcher and those with whom they need to work (Morgan 1996, 133).
- can be an enjoyable learning experience for participants (Einsiedel, Brown, and Ross 1996; Krueger 1993).
- creates the favourable impression that the researcher cares enough to listen (Krueger 1993).

Having considered focus group strengths, however, there were focus-group weaknesses as well. To consider was that the focus-group interview

- does not provide statistical data because focus-group samples are unrepresentative and dangerously small. Generalizations that arise from focus-groups results are more general than specific, more tentative, and more descriptive (Stewart and Shamdasani 1990).
- is impacted by moderator behaviour. Efforts to guide discussion
  1. disrupt the interaction that was the point of the group, and
  2. determine the agenda and form of discussion (Morgan 1996, 140).
- itself may impact the participants. Certain participants may find some topics unacceptable for discussion (Morgan 1996, 140).
- may impact participants. Participants may hold more extreme views after group discussion. (Morgan 1996, 140).
- is not useful where participants are hard to assemble (Morgan and Krueger 1993).
- is not useful when participant involvement is too high — when, for example, participants consider it important to know the answer or to promote themselves (Morgan and Krueger 1993).
- is not useful when the researcher has little control over research setting (Krueger 1993).
- is not useful where a topic is inappropriate for participants (Morgan and Krueger 1993).

Reviewing the Rochester-Focus-Group Procedure

This case study entailed a series of three focus-group interviews. Intended to last one-and-a-half hours, each interview lasted two hours. All three interviews were held on one weekend during separate times deemed convenient through casual conversation. The first interview was held on Friday, March 14 at 7 pm; it included nine members. The second interview was held on Saturday, March 15 at 10 am; it included 13 members. The last interview was held on Saturday, March 15 at 1 pm — a time considered best by seniors. It included 10 senior citizens.

All focus-group interviews were held at a setting comfortable and natural to community members (Frey and Fontana 1993). Specifically, these interviews took place at the Rochester Senior's Drop-in Centre, a building that sees many community activities, year-round. Comfortable, quiet, and free of disruptions (Einsiedel, Brown, and Ross 1996), the drop-in centre is administered by Rochester elders. Moreover, it is a building with Rochester history decorating its walls and — importantly — a building whose use required involvement of senior citizens, some of whom were interested but initially reluctant to attend focus-group discussions.

Because most Rochester residents were eager to discuss the community, community, I offered no incentives. And all but two who had agreed to attend, did attend these interviews. They were welcomed at the door by the focus-group moderator and assistant moderator, both non-residents and impartial professionals. Coffee was available. Most people were acquaintances if not friends. And the atmosphere was comfortable and friendly.

At a large square table behind name plates read easily from any location were a one-page information sheet (Appendix I), a consent form (Appendix II), and a blank sheet of paper and pencil for notes. Near the table stood a flip chart with ground rules for everyone to see. Additionally, behind the table on the assistant moderator's desk was a tape recorder, its multi-directional microphones located as unobtrusively as possible on the participant table.

To reduce the risk of conflict and to encourage discussion, I'd determined seating in advance. Both the seating arrangement and focus-group composition required attention to the following concerns: demographic variables, physical characteristics, personality, group cohesiveness, group compatibility, group homogeneity, social power, and even environmental influences. To limit individual conflict and discomfort, for example, I placed employees and employers, potential adversaries, close friends, and family members in different focus groups. To reduce intimidation, I placed newcomers away from long-time residents, dominant participants beside the moderator, and shy speakers across from the moderator where she could encourage their response with eye contact (Einsiedel, Brown, and Ross 1996). Having lived in the Rochester community, I had the advantage of knowing residents' personalities and relationships to make these decisions.

An experienced moderator unknown to focus-group participants led the focus-group interviews. She had no stake in research results. She followed an interview guide (Appendix III), having been briefed in advance about the study and the focus-group routine. Moreover, she kept written notes regarding her observations. Meanwhile, the assistant moderator kept written notes about verbal and behavioural interactions as well as operated the tape-recorder.

Focus-group questions (Appendix IV) revolved around research objectives. In response, the interviews quickly became casual, friendly, and sometimes lively conversations among persons of a common concern — reportedly "fun" and "informative" times. Participants showed little hesitation and indeed much enthusiasm to discuss most topics. Although, some persons indeed tried to dominate the discussion, the moderator ensured everyone's involvement.

Near the end of each interview, the moderator handed everyone a list of 44 topics of possible community concern (Appendix V) and asked for comments regarding undisclosed concerns. To wrap up the interview, she reviewed the key questions and critical points, asking participants around the table for changes or additions to her summary; more spirited discussion ensued. The moderator concluded the interviews with a thank-you statement.

After each interview, the moderator and assistant moderator regrouped to discuss observations, insights, perceptions about technique and interaction. At that time, too, they prepared for the next interview, cleaning the room and testing the tape-recorder, for example. After all three interviews, they met to summarize and compare their perspectives. I mailed personalized thank-you cards to all participants during the following week.

Designing Focus-Group Questions

Because this was an exploratory study, questions were of an exploratory nature. They probed experiences and views relevant and important to the research question, What do Rochester community members want for and from their community?, centering on Rochester assets, problems, and role in residents' lives. Because topics of personal experience help to guarantee participant involvement, probing questions explored experiences (Morgan 1991). Noted Morgan (1991), "Not everyone is willing to state or defend their opinion, but most people are willing to tell their stories."

The Interview Guide

Although moderator intrusion is considered a focus-group weakness, I required explicit information and, thus, employed structured focus-group interviews (see Knodel 1993). I designed an interview guide (Appendix III) that led the moderator through these interviews (Einsiedel, Brown, and Ross 1996). It contained one warm-up question, six questions — all asking differently about Rochester's strengths and weaknesses — some probing questions, and a time-frame. Questions were worded to avoid threatening or embarrassing the respondents.

Despite my having the questions reviewed by colleagues and some Rochester residents, participants of the first focus-group found question #4 (Describe the ideal Rochester community.) redundant. They found lead-ins to questions #5 and #6 superfluous. Based upon moderator's suggestion and following focus-group methods (Einsiedel, Brown, and Ross 1996; Carl Urion, personal interview, April 1996), I deleted those aspects of the subsequent interviews. Explained Einsiedel, Brown, and Ross (1996, 27), ". . . the first focus group is the test group, and your experience with that group will serve as guide to whatever adjustments must be made for the subsequent groups. "

The resulting query included one warm-up question and three key questions:

- What features did Rochester possess that led you to come (Rochester past)?
- What are Rochester's strengths and weaknesses (Rochester present)?
- What does Rochester need for the future (Rochester future)?

Selecting a Focus-Group Moderator

An experienced moderator from outside of the Rochester community was selected to lead focus-group interviews. Why? For two reasons:

1. I had no prior experience in leading focus-group discussion.
   Accordingly, I looked for a person experienced in leading groups and familiar with asking questions. That person was to be able to remove themselves from the issues being discussed and to understand they were to obtain information — not to preach, teach, or correct participants (Krueger 1993). Additionally, they were to possess the following assets: good preparation skills; group interaction skills; familiarity with questioning techniques; good listening skills; a keen memory; mental discipline; flexibility; friendliness; and sincerity. It was my good fortune to locate such an individual. Interested in the topic, she charged me nothing for her time. Furthermore, I located an assistant moderator well suited to her respective responsibilities.
2. I was concerned about issues of bias.
   My viewpoints regarding environmental issues were well known in the community and I was concerned that my presence would impact participants' responses. Therefore, I selected a focus-group moderator from outside of the community who had no preconceived views of either residents or issues — and of whom residents had no preconceived views. As well, this moderator had no stake in my research.

Selecting Focus-Group Participants

According to Morgan (1991), eight to 10 persons provides the best range of perspectives. The first focus-group interview entailed nine participants, the second interview entailed 13 participants, and the last interview entailed 10 participants. These participants were selected via a snow-ball sample: in other words, they were determined by Rochester community members themselves. They fit the following criteria:

- were 18 years or older.
- were full-time permanent Rochester residents.
- harbour a perspective that constituted a component in the range of Rochester community perspectives.

To be concrete, in line with the Social Action Process (Colorado State University 1967), I started with the "legitimizers" of the Rochester community — the persons of the community whose approval sanctions a project and, thus, leads to its public acceptance. Their status was determined through my experience in Rochester and confirmed by key informants. During a personal visit with legitimizers, I described the research project, explaining its objectives and obtaining their consent to be focus-group participants. Then, I asked the legitimizers to suggest the names of other residents suitable for focus-group interviews. In turn, I visited those persons, asking the same of them. I did this repeatedly, until names on the participant list were redundant. Ultimately, I contacted the persons that Rochester community-members themselves thought fit my focus-group parameters. Comparison of their list with both my own and key informants' lists served as triangulation — and, thus, helped to ensure reliability. In the end, I obtained a list of some 40 persons, 32 of whom said they would participate. Recruitment resulted in only two outright refusals, one by a person who avoids the Rochester community (That person I interviewed one-on-one.) and one by a person who is known for his personal hostility toward the community.

Note that the same time I was recruiting participants, I was deciding who most appropriately fit which focus-group interview, thereby trying to reduce the risk of conflict and to encourage discussion. To ensure everyone's attendance, I followed face-to-face recruitment with an informative mailed reminder (Appendix VI). As well, the night preceding each interview, I telephoned all focus-group participants to remind them of the place and time. I believe that this method of recruitment — snowball sampling, a personal visit, a follow-up mailing, and a pre-interview phone call — as well the interviews' meaningful and interesting topic prompted the high focus-group turnout. It was an exceptional 88 per cent. Of the 34 people invited, only four no-shows resulted.

Two of the no-shows were an elderly couple. It was interesting to me that senior citizens were hesitant to be interviewed. I perceived that they were intimidated by the younger cohort of the community — apprehensive to speak out in front of younger residents and concerned that they'd be ignored or ridiculed by them. In response, I held a seniors-only focus-group interview, inviting more persons than I deemed necessary. This interview resulted in shared memories, experiences, and candor that I'm certain would not have transpired had groups been mixed.

Analyzing Focus-Group Responses Via Content Analysis

Focus-group interviews "are often not amenable to analysis until the information they convey has been condensed and made systematically comparable. An objective coding scheme must be applied to the notes or data. This process is commonly called *content analysis*. (Berg 1995, 174)." In accord, it was thematic content analysis with which I analyzed focus-group data. To do so, I followed methodologies described by Berg (1995), Bogdan and Biklen (1992), Strauss and Corbin (1990), and Glaser (1992).

Content analysis is "any technique for making inferences by systematically and *objectively* identifying special characteristics of messages (Holsti 1969, 608 quoted in Berg 1995, 175)." That identification is done according to consistently applied criteria. Such a procedure, wrote Holsti (1968 598 quoted in Berg 1995, 175), "eliminates analysis in which only material supporting the investigator's hypotheses are examined. In this investigation, content analysis entailed counting the theme (a simple sentence or a string of words) as the level of analysis; contemplating every theme throughout the text of focus-group interviews; using both manifest and latent content; and employing inductive analysis similar to that described by Strauss and Corbin (1990) and Glaser (1992).

It was a wealth of information that emerged from focus-group interviews. I immediately set out to transcribe that data from tape to computer, first listing my personal biases — what I might want or expect to hear about a given topic — to acknowledge and, thus, limit them (Bogdan and Biklen 1992, 46). Then, I began the lengthy process of transcribing verbatim what was said. During that process, I typed names beside responses to help understand the context of perspectives (Carl Urion, personal interview, April 1997); respondents have unique backgrounds and, so, require unique interpretations (Briggs 1986). Also during that process, I began to see concepts and patterns emerging among responses — and these I typed into transcript margins as well, using a different font to distinguish them from responses. Next, I inserted the general and specific observations and comments of the moderator and assistant moderator, using yet another font. Then, I inserted my own observations into the transcripts (Morgan 1991). My own observations included the tone and intensity of oral comment; context — the triggering stimulus and tone and intensity of comment — internal consistency; frequency or extensiveness of comment; intensity of comment; word choice; specificity of response; and big ideas.

Next, I compiled historical information that I later placed into Part One of this dissertation. Then, I began the process of content analysis useful to an exploratory study (Berg 1995).

To begin, I moved systematically through the entire transcript of each focus-group transcript, "open-coding" the data (Berg 1995; Strauss and Corbin 1990; Glaser 1992) — letting each theme speak for itself, trying to capture the message each theme conveyed in the margin beside it (Margaret Haughey, telephone interview, 20 April 1997). Explained Miles and Huberman (1984 56 quoted in Conrad 1991, 24):

> "[Codes] are retrieval and organizing devices that allow the analyst to spot quickly, pull out, then cluster all the segments relating to the particular question, hypothesis, concept, or theme. Clustering sets the stage for analysis."

Two thousand four hundred "open-codes" resulted. These I grouped into 59 coding frames according to their logical traits. These 59 coding frames I clustered into 19 more-inclusive categories. From the 19 categories, I compiled answers to the three key questions:

1. What features did Rochester possess that led you to come (Rochester past)?
2. What are Rochester's strengths and weaknesses? (Rochester present)?
3. What does Rochester need for the future (Rochester future)?

A preliminary understanding of Rochester community well-being took shape.

But answers weren't enough. I wanted a deep understanding of Rochester-community perspectives. Continuing content analysis, I described the 17 categories, writing Chapter 8 of this dissertation. To help eliminate bias, I took care to use respondents' own words (Carl Urion, personal interview, April 1997). And always I asked, How do these categories fit together? How do these data tell a story? What am I hearing under all of this? What are we *really* talking about? (Margaret Haughey, telephone interview, 7 October 1997). I was looking for undercurrents and meanings. I was looking for linkages between categories, for patterns, and for linkages between patterns. I was using intuition, insights, and creativity (Glaser 1992; Strauss and Corbin 1990). And I was considering various levels of analysis — themes, words, manifest and latent meanings.

What resulted was reconstruction of the 17 categories into four themes. To help ensure validity, I passed these four themes by key informants who confirmed them as central to the Rochester community. I reported my interpretation of focus-group responses in the "Interpretation of Data" sections of Chapter 9.

Following the focused literature review described below and its Chapter 3 write-up, I returned to the literature one more time. This time I reviewed primarily refereed journals to compare my findings with those of previous research. The results of my search composed the "Discussion" sections of Chapter 9.

Phase Six of Research — Reviewing the Literature

When content analysis was complete and Chapter 8 plus Chapter 9's Interpretation-of-Data sections were written, I returned to the literature. It was a focused rather than exploratory review I embarked upon this time — a comprehensive review of previous works on the general topics inherent to the four emergent themes. Four themes had emerged from focus-group responses, and I wanted to learn the scholarly perspective regarding the constructs they encompassed. These constructs were 1. rural-urban differences, 2. rural well-being, 3. social interaction, and 4. local attachment. They formed the basis of this literature review and the framework of Chapter 3: The Literature Review.

The literature review led me to publications in the fields of Sociology, Rural Sociology, Rural Geography, Community Studies, Community Development, Community Psychology, Social Psychology, and Psychology. I read some classic works such as excerpts from Tonnies' *Community and Society*, Sorokin and Zimmerman's (1929) *Principles of Rural-Urban Sociology*, and Vidich and Bensman's (1958) *Small Town in Mass Society*. I read some text books including *Social Psychology* (Baron and Byrne 1991), *Rural Geography* (Pacione 1984), *The Problem of Sociology* (Lee and Newby 1983), and *Principles of Community Psychology* (Levine and Perkins 1997). I read an array of popular books and articles, ranging from those by scholars (e.g. Casey 1993; Sim 1988) to those by interested citizens (e.g. James 1997; Maser 1997; Peck 1987) to those by philosophers (e.g. Berry 1972, 1996). As well, I read articles in such refereed journals as *American Psychologist, Journal of Personality and Social Psychology, Journal of Community Psychology, Community Development Journal, Journal of the Community Development Society*, and *Rural Sociology*.

Tests of Research Quality

"Even though the virtue of qualitative research is seldom questioned in the abstract, its practice is sometimes criticized for being nonscientific and thus invalid (Berg 1995, 2)." But being scientific means more than employing deduction (from the general to the particular, applying a theory to a particular case) and testing hypotheses. Being scientific means being open-minded about method and evidence; it entails rigor and systematic empirical enquiry that is data-based (Bogdan and Biklen 1992, 43). Qualitative research meets those requirements — as does this study, in particular. To ensure confidence in the quality of this research, I addressed issues of bias, reliability, and validity, utilizing techniques that have long precedence in social science research and my design conforming to acceptable methodological canon (see Berg 1995; Bogdan and Biklen 1992; Yin 1989).

Indeed, I was vigilante. I addressed issues of bias, validity, and reliability inherent specifically in the case-study design. Moreover, with focus-group interviews embedded within that design, I addressed issues of bias, validity, and reliability inherent to focus-group interviews. I implemented the following, for example:

- Focus-group interviews were utilized — a technique easily understood by participants.
- Trained and impartial moderators unknown to Rochester community members conducted focus-group interviews.
- I stayed away from focus-group discussions.
- Focus-group participants were selected via a snow-ball sample — that is, ultimately by community members themselves.
- The focus-group moderator followed an interview guide (Appendix III).
- The focus-group moderator used probes and verbal and non-verbal cues.
- Focus-group participants were provided a cue sheet (Appendix V) near discussions' end to address issues they'd failed to consider
- Focus-group participants were provided a blank piece of paper to record comments they felt uncomfortable saying in front of the group or had no time to address during discussion.
- The moderator summarized focus-group discussion at the end of each interview, requesting feedback and additional comment.
- During the focus-group interviews, both moderators recorded their observations and insights.
- Together, at the end of each interview and again and the end of the series of interviews, the moderators compared and contrasted their observations and insights, recording their observations on tape and on paper.
- The moderators immediately briefed me about focus-group discussion, on tape.
- Data analysis was systematic and verifiable.
- Focus-group moderators provided insight and confirmation during focus-group analysis.
- Alternative explanations were entertained.
- Focus-group results were confirmed by community members.
- Focus-group results were supported by outside community experts .
- Focus-group results were reported in participants' own words.
- I reported case-study results clearly, in an uncomplicated fashion.

The following discussion describes tactics I employed to ensure high quality research.

Bias — a Potential Source of Error

Research bias is the skewing of results in one particular direction. It is systematic error always in the same direction and the result of some specific source. Inherent in all research, bias can be limited but not eliminated — because researchers never can eliminate all of their effects on subjects or obtain a perfect correspondence between what they wish to study and what they actually study (see Bogdan and Biklen 1992). Bogdan and Biklen (1992 46) explained:

> Qualitative researchers attempts to seek out their own subjective states and their effects on data, but they never think they are completely successful. All researchers are affected by observers' bias. Questions or questionnaires, for example, reflect the interests of those who construct them, as do experimental studies. Qualitative researchers try to

acknowledge and take into account their own biases as a methods of dealing with them.

Step-one in ensuring "objective" and "unbiased" qualitative research is that the researcher acknowledge her bias up front (Bogdan and Biklen 1992; Carl Urion, personal interview, April 1996). I did that: I am a participant in this society, with my own experiences, thoughts, beliefs, attitudes, and emotions, impacted by and impacting the world in which I live. I am not objective. No scientist is. "Unlike physical scientists who can be somewhat detached for their object of inquiry, social scientists are very much a part of the social realities they wish to investigate (Li 1981)." Indeed, I have strong ecological concerns as I explained in Phase One of this chapter. Moreover, Rochester is my home, and I harbour my own perspectives and hopes for it.

That said, however, the perspectives and hopes I harbour belong to just one person. Understanding the *range* of experiences and viewpoints was an objective of this study. As well, it is a prerequisite to the creation of a community vision and the instigation of meaningful collective action. In other words, I wanted to understand the full range of Rochester residents' perspectives, not just my own.

Step two in limiting bias is to create a bias-free research design. I have worked hard to do so. To begin, residents' perspectives — not my preconceived ideas — drove decisions regarding research design, methods, and implementation (Carl Urion, personal interview, April 1994). Community boundaries, for example, were determined by Rochester community members. Moreover, residents' perspectives — not previous sociological research — drove the topics of this dissertation's literature review, thereby reducing the risk of sociological perspectives influencing data analysis and interpretation. "While the idea that researchers can transcend some of their own biases may be difficult to accept at the beginning, the methods researchers use aid this process (Bogdan and Biklen 1992, 46). Their list of methods used to "objectively study their subjects' subjective states" clearly describes my experience:

- They spend a tremendous amount of time in the empirical world collecting and reviewing a tremendous amount of data.
- That data provide more detail of events than even the most creatively prejudiced mind could imagine at the onset of the study.
- They strive to add knowledge not to pass judgment, with their study's value lying in the degree to which it generates theory, description, or understanding.
- They believe any situation is complex and, so, they try to portray its many dimensions.
- They guard against their own biases by recording detailed field notes that include reflections of their subjectivity.

Researcher bias

In accord with Bogdan and Biklen (1992), I kept a record of detailed field notes that included reflections of their subjectivity. As well, I acknowledged my point of view, up-front, recording my subjectivity at the beginning of the study, contemplating it throughout the study, and recording it again at the beginning of focus-group analysis. More specifically,

- I have been a resident of Rochester community much of my life and, therefore, was familiar with many residents and some of their attitudes and experiences. Although, indeed, this history could and did provide an "in" to the community as well as important insight into community workings and a context for data analysis, it could present a bias as well. For example, it could impact my delineation of community bounds or selection of focus-group participants — thus, to avoid imposing my own selection pressure, I asked community members themselves make decisions regarding boundaries and focus-group participants, based upon pre-set parameters.

- I have strong public "environmental" views. As a result, I have 1. a profile in the Rochester community, and 2. my own viewpoint of the community, its workings, and its politics that I had to acknowledge. Clearly, I had to make sure my previous experiences and views within Rochester had limited impact on the delineation of community boundaries and the selection of formal and informal interviewees — and, thus, as I stated, I had community members themselves make decisions regarding boundaries and focus-group participants. Moreover, I wanted to make sure my own experiences in and perspectives of Rochester and society had limited impact on data analysis. The following paragraphs outline my techniques, including the use of key informants to deliberate and substantiate my findings.

Indeed, throughout the study, I leaned heavily on the insight and advice of key informants. These were people whom I'd selected based not on their attitudes and values but on their interest and participation in the community and their demonstrated concern for its well-being. My selection of key informants was confirmed during informal conversation with a number of Rochester residents.

As well, I kept copious notes. Throughout this investigation, I carefully recorded thoughts, insights, speculations, and perspectives concerning the data. Moreover, I recorded my emotions and their effects on my data. In all, this procedure helped me be mindful about how I was influenced by and was influencing data, and helped me to keep track of my research-project's development, to visualize how data collected affected the research plan, and to reduce bias due to memory lapse.

Moreover, because this was a study of Rochester residents' perspectives and — I hoped — important to future community well-being, I knew it must accurately reflect citizen perspectives. There was nothing to be gained from substantiating preconceived ideas or my own hopes. I realized that Rochester residents must speak their own truth every step of the way — and I must be their impartial conduit.

As a result, I used residents' words whenever possible (Bogdan and Biklen 1992; Carl Urion, personal interview, April 1996). I turned to residents at every phase of the study. For example, to avoid imposing my own selection pressure, I asked residents themselves to determine community boundaries and select focus-group participants. As well, I conferred constantly with key community informants to compare and confirm my thoughts, insights, and perceptions, and to verify preliminary findings and emergent themes. Additionally, I obtained an outside and impartial focus-group moderator and assistant. I systematically and rigorously analyzed focus-group data, using content analysis. I consulted senior scholars regarding design, techniques, and analysis. I consulted a colleague in community studies who affirmed my interpretation of data and shared similar observations. What's more, the literature confirmed my findings.

And, too, I arrived at findings that I did not expect, indicating that my personal perspectives did not guide analysis and interpretation. That community members perceive the land as important and valuable to their quality of life and identity surprised me, for example. Why? My past experiences had led me to believe that Rochester residents held little regard for the land. I had seen rampant logging, agricultural clearing, and biocide use on private property, for instance, removal of ecological concerns posted on the bulletin board of The Voice of The Valley (citizens against industrial clearcutting), and removal of the bulletin board itself from outside the Rochester Hotel. Plus I'd had several conversations with residents who harboured a pro-ALPAC sentiment, especially during the pulp mill's early days.

Moreover, that Rochester residents want relationships with each other and the land surprised me as well. I had assumed that negative attitudes, negative behaviours, lack of participation, and busy schedules all indicated residents cared for neither community interaction or relationships. As well, I had assumed that needs basic and critical to psychological well-being — like social interaction, relationships, and support — were being met outside of the Rochester community.

Bias Due to Research Design

To avoid imposing my own selection pressure, I took steps to prevent a biased focus-group sample: I selected participants via a snowball sample, relying on the community to determine focus-group participants based upon my parameters. Additionally, during focus-group selection and analysis, I considered strength of personalities — aware that a dominant personality could control an interview or intimidate a shy respondent, for example. I strove to create unbiased focus-group questions, passing questions past two committee members and pretesting questions among key informants. Furthermore, during analysis, I was aware of such group-related factors as group composition. For instance, during analysis, I realized focus-group #1 comprised a school board member, a teacher, a future preschool teacher, and a former teacher — all who had an interest in Rochester School and all who initially rallied behind a pro-Rochester School perspective. As well, I was aware of the "evaluation-apprehension effect" in which respondent is afraid of being judged too harshly, "expectancy effect" in which the respondent wants to do what is expected, and "social desirability effect," in which the respondent wants to respond/behave in a manner that is socially respectable (Katzer, Cook, and Crouch 1991). I was aware of moderator effect as well. Finally, after compiling results, I reviewed the literature — thereby, trying to reduce my influencing the data with previously reported findings.

Bias Due to Respondent Behaviour

There was yet another potential bias about which to safeguard: bias due to respondent behaviour. Here, my familiarity with Rochester residents and their way of life was helpful. Having known the Rochester community most of my life, I was well-aware of customary resident behaviour.

Bias due to respondent memory lapse was of additional concern. Accordingly, I corroborated data via data-triangulation whenever possible (Berg 1995; Bogdan and Biklen 1992; Yin 1989). For example, aware of the "tendency to take a highly selective and somewhat rose-tinted view of 'the good old days', which can convey a misleading account of the actual changes which have occurred (Lee and Newby 1983, 52)," I triangulated recollections of one resident with recollections of another and/or with a document statement whenever possible. Furthermore, I had "experts" as well as key community informants review the historical components of this dissertation.

In addition, I was concerned both about resident perception of this university study and about "observer effect" — bias due to the observers' presence changing the behaviour of observed. Therefore, I did not openly advertise the initial phases of the study. That said, however, word travels fast in a small community! An overt field researcher, I did openly discuss my research and techniques and I often approached residents for advice and insight. But it was not until I sought focus-group participants that I publicly broadcast this study.

I was also concerned that my presence would influence focus-group participants' responses; accordingly, I stayed away from focus-group interviews. Moreover, I worried that my community profile and its impact on residents support of this project. Accordingly, I backed off from actively participating in community politics. This action I instigated at the onset of the research project, and I continued it throughout the study. Why? Known throughout the community as a conservationist dead set against industrial logging — in particular, against Mitsubishi's Alberta Pacific Forest Industries new pulp mill — I wanted to limit bias that might result from respondents' agreeing or disagreeing with my stand.

In retrospect, I perceive that residents did come to hold a different view of me. I became — I believe — perceived less as an "environmentalist" and more as a concerned community member. To be sure, community support for this study was overwhelming. Take one comment at the end of a focus-group interview: "I think all of us feel very honoured that we have been chosen for this." Came a reply, "For Rochester to be studied — that's really something! I'm so pleased."

Reliability

Ensuring reliability means demonstrating that the operations of a study can be repeated with the same results. In other words, "if a later investigator followed exactly the same procedures as described by an earlier investigator and conducted the *same* case study all over again, the later investigator should arrive at the same findings and conclusions (Yin 1989, 44)." The goal of reliability is to minimize error and biases in the study. My use of multiple-data gathering techniques helped to ensure reliability (Zeisel 1991) as did documentation of research procedures throughout the study. That documentation included (see Yin 1989)

1. a "case-study protocol" — that is, my proposal — that outlined the project, field procedures, research questions, and guide for the dissertation.
2. a "case-study data base" in which I copiously and carefully noted experiences, thoughts, and insights throughout every phase of research.
3. a chain of evidence that connects the dissertation to the data base to the case study protocol, losing no original data through carelessness or bias.

It is interesting to note that Bogdan and Biklen (1992 48) considered reliability a quantitative term. Qualitative researchers, they wrote,

> are concerned with the accuracy and comprehensives of their data. Qualitative researchers tend to view reliability as a fit between what they record as data and what actually occurs in the setting under study. Two researchers studying a single setting may come up with different data and produce different findings. Both studies can be reliable. One would only question the reliability of one or both studies if they yielded contradictory or incompatible results.

With that viewpoint in mind, reliability of this study was ensured by the use of multiple data-gathering techniques and key informants.

Validity

Validity is the accuracy of a given technique. Ensuring validity means ensuring the research instrument investigates the phenomenon under investigation (Katzer, Cook, and Courch 1991, 265) — that what is supposed to be researched is researched. According to Yin (1989), three types of validity are pertinent to the case-study design:

1. construct validity — establishing correct operational measures for the concepts being studies.
2. external validity — establishing the domain to which a study's findings can be generalized.
3. internal validity — establishing a casual relationships.

Just the first two, however — construct validity and external validity — are relevant to the exploratory case study.

Construct validity

Construct validity is especially important to case studies, which have been attacked for failing to develop a sufficiently operational set of measures and for using subjective judgments to collect data. Case studies employ three tactics to increase construct validity (Yin 1989, 42): 1. using multiple sources of evidence during data collection, 2. establishing a chain of evidence during data collection, and 3. having key informants review the draft dissertation. All of these I did.

External validity

External validity, too, is important, for critics have attacked the case study as being a poor basis for generalizing. Noted Yin (1989, 43), however,

> these critics are implicitly contrasting the situation to survey research, where a "sample" (if selected correctly) readily generalizes to a larger universe. *This analogy to samples and universes is incorrect when dealing with case studies*. This is because survey research relies on *statistical* generalization, whereas case studies (as with experiments) rely on *analytical* generalization.

Analytical generalization entails generalization from a particular set of results to some broader theory. Like all case studies, this study entails an analytical — not a statistical — generalization. Accordingly, results of this study are generalizable to a theory concerning rural community, community well-being, and global well-being.

Ecological validity

A fourth kind of validity is ecological validity, meaning that the circumstances of the researcher's procedures match those of everyday world of the subject (Briggs 1986). To unsure ecological validity, I took into consideration the effects of the interviews — both focus-group and personal — and interviewer presence on responses. I was aware that

- each interview session is a unique social interaction involving social roles.
- respondents have unique backgrounds and, so, require unique interpretations to questions of identical words, inflections, and intonations.

Personal observations and, to some extent, focus-group interviews both study people in their everyday world — and helped me to ensure ecological validity.

Ethical Considerations

Ethical considerations are important in the study of a community. They are important to the community itself, where research could instigate discomfort of individuals and contention or even conflict among residents. As well, they are important to the research-project itself, which depends upon the cooperation of community members. More specifically, in a small town where word spreads like wild-fire, if anyone were to think an ulterior motive for research existed, they might refuse to cooperate, others might follow suit, and the research project would fall apart. All in all, it behooves the researcher to address the ethics of this study.

I did so. To begin, I actively decided to employ overt field research. Secrecy and deception was out of the question, I knew: no reason existed for it and no good would come from it — in this study striving to lay a foundation both for future research and for community action. Consequently, I openly pursued my research. I candidly and honestly discussed my project and techniques with residents and often requested their help and insight.

With focus-group interviews, I took particular care. There *could* be a danger in using focus groups in a small town if they were not used with caution. Focus-group interviews potentially could blow apart a community — if the topics discussed were contentious and the composition of group members, the physical layout of the group, and the location of the discussion group were poorly considered. In such cases, conflict could arise, hurtful words and actions could ensue, friendships could fall apart, neighbours could fall out, and the community could become angry, fragmented, and damaged. The social fabric — and maybe economic fabric — of the community could rip apart.

Therefore, it was my responsibility to develop a well-planned focus-group interview. Accordingly, this study was approved by the Ethics Review Committee of the Faculty of Agriculture, Forestry, and Home Economics.

To begin, focus-groups addressed the Rochester community — an issue far from contentious. It was an issue, in fact, that residents considered interesting, meaningful, and worthy of address. During both recruitment and focus-group interviews, Rochester residents were eager to talk about community change, challenges, and well-being.

Moreover, from recruitment though the focus-group discussion, participants were informed clearly about the nature and purpose of the research. It was described during my first visit, in my recruiting letter (Appendix VI), during my pre-focus-group phone call, and during focus-group interviews (Appendix I). Moreover, interviewees were provided consent forms (Appendix II) that described research and assured confidentiality, anonymity, and the option to comfortably withdraw at any time. Furthermore, focus-group participants real names appeared nowhere in any draft of this dissertation.

Nor were focus-group questions contentious. They were exploratory questions, designed to understand the experiences and perspectives of Rochester community members about their community. They sought to understand "What do Rochester community members want for and from their community?" and revolved around Rochester strengths and weaknesses. Worded to avoid threatening or embarrassing the respondents, they did not intrude into the private lives of residents. Moreover, they were presented to participants via an interview guide (Appendix III) approved by the Ethics Committee.

To reduce the risk of conflict and to encourage discussion, I carefully considered the placement of participants in the appropriate focus group Such placement required attention to the following concerns: demographic variables (It is well known, for example, that age differences influence group behaviour.), physical characteristics, personality, group cohesiveness, group compatibility, group homogeneity, social power, and even environmental influences. Even the seating of the focus group participants required attention to these factors. All were considered. For instance, I place the elderly in a focus group of their own, in which they were comfortable and willing to talk. To limit individual conflict and discomfort, I did seat persons of drastically different social strata beside one another. Nor did I place enemies, employees and employers, close friends, and family members in the same group. When considering seating, I did not place a shy woman next to a dominating man; name-tags at the table will ensure the seating arrangement. Having lived in the Rochester community, I had the advantage of knowing community members and relationships to make these decisions.

In the end, this study appeared to leave the community in no worse shape than before the study began. Perhaps, in fact, the community was left in better shape. For focus-group participants, in particular, expressed their appreciation and enjoyment. To be specific, one participant said, "Well, this has been really good. I think this is a positive thing for our community — just to communicate. A first step. A good step." Another person commented, "Getting everybody's input, doing a plan for the community — I think that's something that we need to look at. And Diana has got a wonderful start here."

3 REVIEW OF THE LITERATURE

> The narrowness and insularity, the inconvenience and backbreaking work with primitive tools are well gone. But we are losing, or have already lost, the large measure of autonomy, the intimacy, the sharing of work, the visiting and caring of those former days. Few of us would want to go back, yet important vestiges of the past remain. On that foundation we can build a new rural community shaped and controlled more and more by the people who live there.
>
> Sim
>
> *Land and Community: Crisis in Canada's Countryside*

In most research projects, the literature review provides a framework upon which empirical research is based. Such was not the case in this project, however. As Chapter 2 explained, this study was an exploratory study with an inductive approach. It was grounded in the perspectives of Rochester residents (Glaser 1992; Strauss and Corbin 1990; Carl Urion, personal interview, April 1994). In other words, residents' perspectives drove the design, methodology, and implementation of this study. Ever vigilant to bias, I wanted neither my personal perspective nor current sociological views to influence the analysis or interpretation of data.

For that reason, this chapter's literature review followed focus-group analysis. I could not know what to topics to review without first knowing what topics were considered central to community change, challenges, and well-being. After content analysis, however, I saw four topics as primary to Rochester residents. More specifically, four themes had emerged from content analysis, each of which encompassed a broad sociological construct. These constructs were 1. rural-urban differences, 2. rural well-being, 3. social interaction, and 4. community attachment. These constructs required comprehensive understanding before I could take the next step of focus-group analysis — that of comparing and contrasting my specific results to those of previous research.

So it was that I embarked upon a comprehensive literature review focused on topics revealed paramount to Rochester residents. In accord with my supervisory committee's suggestion during my proposal exam, these topics constitute Chapter 3. Briefly, Chapter 3 describes the concept of community, societal transformation over time, and classical social theory regarding that societal transformation. Then, it reviews current literature regarding the four constructs: 1. rural-urban differences, 2. rural well-being, 3. social interaction, and 4. community attachment.

Scholarly interest in community is as old Sociology itself. Arising out of the transformation of industrial society, academic interest in community has undergone its own kind of transformation. Originating as contemplation of pre-industrial and post-industrial societies and evolving into consideration of differences between rural and urban societies, the topic of community provoked sociological attention that peaked in the 1940s through 1950s, waned in the 1960s, and nearly vanished in the late-1970s.

Increasing concern for quality of life instigated increasing interest in community. With that interest came contemplation of the sense of belonging. Explained Newbrough and Chavis (1986 4), "Since quality of life can be enhanced or degraded, sense of community would seem to be affected similarly. With the right kinds of conditions, it would be possible to create a sense of community where none existed before."

Today in popular culture, community has emerged with a vengeance as people seeking a better quality of life work toward "volunteer simplicity," "healthy communities," and "sustainable communities." Moreover, in rural policy, community action is emphasized. In academia — in such academic fields as Sociology, Rural Sociology, Community Psychology, Social Psychology, for example, and in such resource-extracting fields as Forestry — community research is popular. And in Environmental Studies, community sustainability and community development begins to arouse interest.

Defining Community

Regardless of its long history, however, the concept of community remains elusive. There has been no agreed-upon definition of community over the past two centuries. Upon reviewing the community literature, Hillery (1955) considered 94 different definitions, concluding only that "all of the definitions deal with people. Beyond this common basis, there is no agreement." Even, today, the very meaning of community stirs debate (see Willis 1977; Summers 1986; Wilkinson 1986). To be clear, numerous definitions have been provided — but, reported Bell and Newby (1971 27), these definitions often reflect an individual researchers' viewpoint of what community *should* consist of. And what community should consist of clearly has depended upon the researcher and research context.

But what, in reality, *does* community consist of?

According to Hillery's (1955) review, sociologists agree that community consists of people. Other than people, however, no consensus exists regarding other components of community. Even so, Hillery (1955) and Willis (1977) discerned three additional components from the sociological literature: 1. social interaction, 2. common ties, and 3. territorial area.

Debate, however, surrounds their nature and significance. Territory, for example, has been said to have blurred boundaries (Wilkinson 1986) and to be increasingly irrelevant (Blakely 1989). Common ties have been said to be increasingly less important, with "the embrasive community identity and solidarity" a thing of the past (Christenson, Fendlay, and Robinson 1989). Social interaction has been said to have different meanings, ranging from a collection of organizations to which people relate and on which people depend (Hillery 1955; Willis 1977) to a process (Kaufman 1966; Wilkinson 1991) that occurs in a crisis.

One Perspective of Community

One perspective of community — the interactional perspective of community —considers social interaction the most important community component. As described by Wilkinson (1991), social interaction endures while other components grow irrelevant. Indeed, social interaction is the one component upon which all others depend and from which all others arise. Face-to-face leads to a community's geographic boundaries, associations that form social networks, and relationships and, thus, ties among residents that form a collective identity, wrote Wilkinson (1991). Face-to-face is the first step in community action. In sum, according to the interactional perspective of community, social and ecological interaction is imperative to both the very definition and the very well-being of the individual and the community.

The Transformation of Society

Human beings are social animals with a history rooted in the family, clan, or tribe. Even in the relatively recent feudal times of western civilization when some people lived in cities, it was the small village in which most people lived. In fact, until the advent of the Industrial Revolution in England, it was the small local community that formed the social unit around which all family life revolved (Longres 1990; Pillari and Newsome 1998). Thus, until the 1700s, the village or spatial community harboured most social interaction and relationships.

Historically, the community was a rural community — a small, isolated, self-contained, and self-sufficient place (see Forgas 1985; Lee and Newby 1983; Toffler 1980). Family, friends, and acquaintances lived near one another, their households interacting regularly. Amid daily face-to-face contact, residents helped, entertained, and conversed with one another. Community members knew one another by reputation if not by name. They integrated their lives with one another's; they shared beliefs, attitudes, and values; and — via social pressure and sometimes severe punishment — they enforced social norms and conformed to community traditions. All in all, community was society, society was community, and "the life of the community and life of the individual [were] practically indistinguishable (Forgas 1985, 8)."

In the pre-industrial community, residents had ample opportunity to form relationships. But whether they formed the intimate relationships and always-cohesive community which classic sociological theory is based is questionable (see Bender 1978; Tilly 1988). Nonetheless, within pre-industrial communities, interaction with each other and with the land as well as the resulting relationships were important, critical to physical survival and to individual well-being.

To be clear, closely connected to the rhythms of nature and pursuing specific activities in certain seasons, villagers depended upon themselves and the land. Families satisfied their own basic needs. Children and adults worked in or near their own homes, growing crops for consumption, creating handicrafts from start to finish, and developing products for personal use, trading what they didn't use. People obtained education through relationships with family, friends, and nature. Working together and helping one another, they lived generation after generation in the same community and on the same land, under the same traditions, superstitions, and the Catholic religion.

The Industrial Revolution Transforms Society

Then came the cotton ginny.

It was with the advent of the cotton ginny and, shortly after, steam power that comparisons of pre-industrial and post-industrial communities arose. For with these innovations came the Industrial Revolution to England. What resulted was dramatic social and ecological transformation (see Forgas 1985; Lee and Newby 1983; Toffler 1980).

In every way, agrarian society changed. People began producing foods, goods, and services for exchange and profit while becoming dependent upon foods, goods, and services produced by others elsewhere. The importance of capital and private property increased. Machinery rather than the hand created goods. The factory rather than the family formed the unit of production. Specialized institutions freed workers for the time-clock and the nuclear family (two parents plus children) replace the extended family, with seniors' homes caring for the elderly and — in Alvin Toffler's words (1980 23) — "factory-style schools" caring for the children, teaching reading, writing, arithmetic, and history while, at the same time, drilling punctuality, obedience, and "rote repetitive work." A growing labour surplus in the rural countryside and a need for industrial labour in cities drove people to the city. Migrating to the factory for employment and to the city "to escape from the field and the tyranny of climate (Berlan-Darque and Collomb 1991)," they left the countryside. Cities offered jobs; cities meant progress; cities grew in population. Urban squalor mounted. Demographically rural society developed into demographically urban society.

All the while, personal relationships with each other and with the land changed. More specifically, face-to-face interaction with known individuals decreased and impersonal interaction with strangers increased. Friends and family members became geographically and socially mobile, and they affiliated less regularly with those they left behind. Community members interacted less often with one another and the land, and they became more isolated in their daily lives, less acquainted with each other and nature, and less helpful to their neighbours. As Forgas (1985) noted, people honed distinct relationships for work, entertainment, and family life, forming differentiated, specialized, and formal associations. Accordingly, once-integrated personal lives became fragmented. The life of the individual and the life of the community no longer were one in the same.

Clearly, society transformed with the Industrial Revolution. Social interaction changed. And for the first time ever, the value of community was articulated (see Lee and Newby 1983). Looking at social interaction and its antecedent interpersonal relationships to understand and explain the transformation, classical social theorists deliberated the differences between traditional and modern society and, ultimately, between rural and urban society. Considering pre-industrial society intimate and cohesive, they described the demise of the small closely-knit community and, then, the demise of the small closely-knit rural community. Indeed, they incited a rural-urban debate that would dominate rural sociology until the 1960s.

Tonnies Introduces Gemeinschaft and Gesellschaft

It was in 1887 that German theorist Ferdinand Tonnies published his classic book *Gemeinschaft und Gesellschaft* (translated into *Community and Society)* that contrasted pre-industrial and post-industrial society. Concerned about the "loss of the sense of identity, meaning, and authenticity (Lee and Newby 1983, 51)," Tonnies proposed his well-known gemeinschaft-gesellschaft dichotomy. Gemeinschaft was society of the past, which was community, which was communion — which was dissolving. Gesellschaft was society of the present. Contended Tonnies, gemeinschaft and gesellschaft together presented the ideals through which society passes, a past-present dichotomy.

It was the idea that social relationships exist through the will to associate upon which Tonnies' thinking was based. Gemeinschaft and gesellschaft were affiliated with people's reasons for interactions and relationships and with their way of life (Loomis 1957, 5). Wrote Tonnies:

> A group or a relationship can be willed because those involved wish to attain through it a definite end and are willing to join hands for this purpose . . . . In this case rational will, in which case means and ends have been sharply differentiated . . . prevails. On the other hand, people may associate themselves together, as friends do, because they think the relationship valuable as an end in itself. In this case natural or integral will predominates.
>
> There are degrees of rationality of natural will and of the communities and groups which it forms. Thus, in order of the importance of rationality, there are the Gemeinschaft groups based on friendship, on neighbourliness, and on blood relationships.

Contended Tonnies, the will of gemeinschaft was natural and impulsive, moving a person to act without entailing deliberation or calculation; personal relationships were intimate, enduring, meaningful, and based on who a person was versus what a person did. Friends, family, neighbours and church were important, and an attachment to place existed. The will of gesellschaft, on the other hand, was deliberative and calculating, connecting a means to an end and recognizing the need to suppress impulses to attain goals. Gesellschaft interactions and relationships were impersonal, formal, calculative, and contractual. In brief, gemeinschaft societies were closely-knit societies rooted in family ties and genuine attachments — in "blood" (bonds of kinship), "mind" (belonging to a group) and "place" (geographical bonds) or, that is, in the sociological constructs of family, friendship, and neighbourhood.

Gesellschaft societies were everything that gemeinschaft societies were not. Such a dichotomous picture of society was not new: dichotomies had been proposed since the age of Confucius (Sorokin 1957, vii). Moreover, Tonnies' analysis of traditional and modern society wasn't the first or the last. Other social theorists also presented analyses of societal transformation.

Other Classical Theorists Contemplate Society

There was Karl Marx, for example, who considered societal transformation to be a path toward human liberation. Pre-industrial society he viewed as regressive, a primitive stage in liberation. With Friedrich Engels, he wrote that pre-industrial society or rural society was an early stage in the development toward a "society that releases the productive forces inherent within the relations between humans and the world (Bonner 1997, 16)." It was marked by subservience to the land and to other people, they contended, and thus was backwards, inferior, and "idiocy."

There also was Emile Durkheim who — regarding social relationships and solidarity — considered societal transformation as a transformation from a pattern of communities integrated within themselves to pattern of local integration into the larger society. As Edward Grabb (1990) explained, Durkheim contended that pre-industrial society contained a strong "collective consciousness," a high degree of moral consensus, a shared set of beliefs and sentiments. It was these common and accepted values that bound otherwise autonomous and self-sustaining groups, Durkheim asserted; this solidarity he labelled mechanical solidarity. On the other hand, he maintained, it was decreased self-sufficiency, increased cooperation, and increased dependence that bound individuals of the modern world (Grabb 1990, 81). Post-industrial society contained a weak collective conscience; it contained a division of labour, specialization, and dissimilarity, he said. Like the individual organism, post-industrial society contained various parts that worked together to constitute the whole: there were many groups with few common interests, values, and ties. This solidarity Durkheim called "organic solidarity."

In time, deliberations of societal transformation evolved from deliberations of traditional society and modern society to deliberations of rural life and urban life. Tonnies' analysis of past-present interpersonal relationships evolved into an analysis of rural-urban interpersonal relationships. And a rural-urban distinction surfaced in social theory.

It was Tonnies' contemporary Georg Simmel who first rooted gemeinschaft in rural society and gesellschaft in urban society (Lee and Newby 1983). Small town and rural living entailed a slow paced and rhythmic sensual lifestyle, Simmel wrote — a way of life in which individuals react with their hearts rather than their heads and foster "deeply felt and emotional relationships (Simmel 1966 14)." Gemeinschaft was rural society, Simmel contended, and, in contrast, gesellschaft was urban society. Urban living revolved around money; it was a fast-paced and profitoriented lifestyle that entailed intellect, calculative relationships, and few face-to-face relationships.

However, Simmel noted, despite the comfort and security that rural living provided, a negative side existed as well — a confining, conforming, and de-individualizing side. For although cities were impersonal, isolating, and alienating, they did allow a person to develop to their potential; rural communities, in contrast, oozed with pettiness and prejudice, and bound residents to religious, moral, and economic constraints. Their mores squelched individual differences, freedom, and growth.

Max Weber, too, saw a rural-urban distinction. In his article "The Nature of the City (1966)," Weber maintained that traditional interpersonal relationships are missing in the city. Wherever there is a densely populated area, he wrote (10), neighbourhood interaction and thus associational ties are absent.

A North American Perspective Emerges

From the European perspective came the North American perspective of community and society (see Bonner 1997). It was in 1938 that Louis Wirth presented his influential view of rural-urban society in "Urbanism as a Way of Life." Like Tonnies and Weber, Wirth believed that community size and density determine formation and maintenance of community attachment. But — like Simmel — he contended that geographic location determines relationships and lifestyles. He stressed the impact of urban society on modern society and grounded gemeinschaft-gesellschaft in rural-urban locality (Lee and Newby 1983).

More specifically, Wirth wrote that the large population, density, and heterogeneity of the city determines residents' values and behaviours. For example, he wrote, the city encompasses competition and formal mechanisms of control. It comprises face-to-face contacts that are utilitarian, "impersonal, superficial, transitory, and segmental (Wirth 1966, 47)." It encourages superficial, anonymous, and transitory relationships. It incites reserved, indifferent, and blasé outlooks; cosmopolitan and sophisticated attitudes; frustrated and anxious behaviors; self-sufficiency and weakened ties among neighbours, friends, and family; and, thus, the disappearance of traditional bonds of solidarity. Additionally, the city encourages social and geographic mobility, social status, and segregation.

Wirth saw a rural-urban dichotomy — a polar-extreme. By implication, he contended that the rural community is what the city is not. By implication, he asserted that rural society is stable, cohesive, and has a sense of belonging; it is good. Thus, from Wirth's point of view, rural society and urban society were direct opposites.

It was in 1947 that Robert Redfield described a rural extreme. He presented a rural way of life directly opposite of Wirth's urban way of life, and, therefore, created a continuum along which societies could be placed. His was "the folk-society" polar-extreme and, accordingly, the folk-urban continuum. The opposite of both modern society and the city, folk society was based upon studies of Mexican cultures. It was similar to Native American Indian cultures and reminiscent of Tonnies' gemeinschaft. It was noted by Bell and Newby (1971) that "small, isolated nonliterate and homogenous with a strong sense of group solidarity;" by implication, urban society was anomic and "large, non-isolated, heterogeneous, and lacking a strong sense of group solidarity (44)."

There were other sociologists, too, who saw a rural-urban distinction. Notable were Pitirim Sorokin and Carle Zimmerman who, upon cataloguing accounts of North American rural life (1929), first offered suggestion of a rural-urban continuum. Like Tonnies, Weber, and Wirth, they presented an anti-urban pro-rural perspective (Lee and Newby 1983; Bonner 1997) — an idyllic, romantic, and nostalgic characterization of rural society as community lost.

The Rural-Urban Distinction Loses Popularity

Characterization of urban society as gesellschaft and rural society as gemeinschaft endured through the 1960s. As Lee and Newby pointed out (1983), by then, some urban-neighbourhood studies had documented the prevalence and importance of social ties. Gemeinschaft-like neighbourhoods were found to exist in cities — in East London (Young and Willmott 1957) and Leeds (Hoggart 1957) — and found to be absent from some rural communities (Littlejohn 1963; Pahl 1966). It was realized that gemeinschaft-like relationships could exist in urban society and that gesellschaft-like relationships could exist in rural society. The rural-urban continuum consequently began to corrode.

In 1960, Richard Dewey proclaimed the rural-urban continuum "real but relatively unimportant." In 1962, Herbert Gans refuted Wirth's contention that geographic location determines relationships and lifestyles. In 1966, Ray Pahl wrote, "any attempt to tie particular patterns of social relationships to specific geographic milieux is a singularly fruitless exercise (328)." Urban society *is* modern society, Pahl contended, and gemeinschaft and gesellschaft relationships exist in the same community.

So it was that a rural-urban view of societal transformation grew popular and then scarce. Laden with value judgments, the rural-urban debate had revolved around the superiority and way of life of each society (Bonner 1997, 14). At the same time, the rural-urban continuum had aligned social relationships with location and pointed to the city as a source of societal transformation (Bell and Newby 1971). Bonner (1997 49) summarized:

> As a dichotomy, the rural-urban dichotomy has been criticized as empirically irrelevant because no "two communities show as sharp a discontinuity' as a 'rural' and 'urban' community as implied by these typologies" (Dasgupta 1988, 8). As a continuum, it has been seen as more of an obstacle than a help in research because it involves accepting "a false continuity" (Pahl 1968, 293) which in turn makes it difficult to recognize important and sharp discontinuities between communities.

In short, academic writings on societal transformation first endorsed and then rejected both a rural-urban dichotomy and a rural-urban continuum based upon social relationships. That the gemeinschaft ideal of the intimate and cohesive, rich and autonomous community ever did exist in the pre-industrial community is an assumption now questioned by some sociologists (e.g. Bender 1978; Berlan-Darque and Collomb 1991; Tilly 1988). Explained Wilkinson (1991 6), "A transformation might have occurred in the history of the community, but the transformation was well advanced by the time communities were being formed by European migrants to North America." That gemeinschaft means rural society and gesellschaft means urban society is a perspective now rejected by sociologists. That rural society is positive and urban society is negative is a viewpoint now discarded by sociologists. And that societies transform over time from a rural extreme to an urban extreme or that communities exist as wholly rural, wholly urban, or some combination in-between is a perspective now dismissed by sociologists.

What is acknowledged by sociologists, however, is that as urban values, behaviour, and material culture move into the rural landscape, the rural-urban distinction dwindles. Nevertheless, discussion regarding rural and urban differences still surfaces in the current Sociology and Rural Sociology literature. Much of that discussion still revolves around interpersonal relationships and associational ties.

More clearly, a literature review revealed that some contemporary researchers agree with Gans and Pahl, claiming rural and urban associations do not differ. They contend that associations are increasingly less differentiated and, so, increasingly more difficult to categorize. They maintain, for example, that friendliness and support exist in urban and rural communities alike (Fischer 1982; Frankfort-Nachmias and Palen 1993; Stinner et al. 1990; Vidich and Bensman 1958; Wellman 1979; Wellman and Leighton 1979; Whyte 1981). And they maintain that social bonds of comparable strength and number exist in urban and rural communities (Avila 1969; Connell 1978; Friedland 1982).

At the same time, however, the Sociology and Rural Sociology record contains articles from contemporary sociologists who agree with Tonnies, Marx, Durkheim, Simmel, Weber, Wirth, and Redfield. They maintain that associations within rural and urban societies *do* differ (Beggs, Haines, and Hurlbert 1996; Granovetter 1973; Wilkinson 1991; Zimmerman and Moneo 1971). For example, in their analysis of Canadian-prairie settlement, Zimmerman and Moneo (1971) asserted that the larger service centres or "farm cities" offer gesellschaft-like relationships while tiny "stop-off centres" provide gemeinschaft-like relationships. And in their study of personal-networks of rural Louisiana residents, Beggs, Haines, and Hurlbert (1996) found that rural networks contain a greater proportion of long-term relationships and a smaller proportion of short-term relationships than do urban networks, contain a greater number of intense ties (long-term intimate relationships characterized by frequent contact), and contain greater role homogeneity.

Moreover, they found that rural networks are smaller, more interconnected, and more likely to be based in family and neighborhood versus friendship.

A Rural-Urban Distinction Exists Today

Placing interpersonal relationships and associational ties aside, there is literature in Sociology, Rural Sociology, and Social Psychology that compares and contrasts other rural-urban characteristics. It reveals a rural-urban distinction. There are differences in the timing of first sexual intercourse, childbirth, and marriage (Heaton, Lichter, and Amoateng 1989), for example, and differences in support for environmental protection (Lowe and Pinhey 1982). According to Fortman and Kusel (1990), the literature also reveals differences in crime, poverty rates, exit from welfare, structures of family, interpersonal and economic satisfaction as well as attitudes and values stemming from historical, occupational and ecological difference. More often than not, it is rural communities that are at a disadvantage.

In fact, the literature shows clearly that rural communities have their own set of problems (Flora et al. 1992; Rogers et al. 1988; Wilkinson 1991). For example, it shows that rural communities often have unsuitable and inadequate housing (Ziebarth, Prochaska-Cue, and Shrewsbury 1997); a high unemployment rate (Nilsen 1979); an increasing rate of divorce, crime, and mental illness (Flora 1992; Rogers et al. 1988); few childcare services (Levine and Perkins 1997); and a shortage of psychotherapy professionals (Levine and Perkins 1997). Add to these, those problems listed by Heberlein (1991): lower paying jobs than the city, a larger proportion of residents living below the poverty line; less capital for development; fewer and poorer services; weaker transportation linkages; less accessible health care; higher rates of infant mortality and psychiatric disorders including depression; more severe intergenerational conflicts; less cultural diversity; and fewer skilled workers. Additionally, Heberlein noted that compared to urban living, rural elderly are less likely to see their children at least once a year; rural residents are less likely to be well educated; and rural children are more likely to have lower mental ability scores, aspire to lower status jobs, and — "especially the smart, able, and ambitious" — leave the community.

There is good news for rural communities, however. Although increasing, the rural divorce rate is lower than that of the city (Heberlein 1991). Although increasing, the rural crime rate is lower too, and generally directed toward property rather than people. The cost of land and housing is typically lower in the country; the air is cleaner; the community is quieter; and natural aesthetics and outdoor recreational opportunities are nearer.

The Rural Population Turnaround

A Pro-Rural Perspective Exists

Despite the reportedly dismal state of rural affairs, rural residents typically are more satisfied than urban residents with the communities they inhabit (see Campbell, Converse, and Rodgers 1976) — especially when those rural communities lie near a city so their residents can have the best of both worlds (Fuguitt 1997). Rural residents are more satisfied with their environmental quality, their standard of living, their social conditions (Bell 1992; Bonner 1997; Willits and Luloff 1995; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992). On the other hand, however, they are less satisfied with such public services as waste disposal, fire protection, and law enforcement (Campbell, Converse, and Rodgers 1976; Heberlein 1991; Flora et al. 1992).

To illustrate, a 1992 study (Yerxa Research Inc. 1992 in Bonner 1997, 117) of Edmonton and surrounding rural communities arrived at the following conclusion:

> The study found that there are some distinctive contrasts between the ways that people who live in an urban centre perceive the "life in the city" and the way that people who live in smaller towns view quality of life. Overall, it was found that rural residents were much happier with their communities than urban residents with respect to aspects of everyday life that were very much under their personal control — aspects such as "raising a family," interactions and communication with other people. In contrast, urban residents were clearly more satisfied with the city as a place to live than rural residents with respect to the increased opportunities and variety of things to do. These included such things as shopping and entertainment opportunities (movies, live theatre, dining out). Features that remained similar between the types of communities included cleanliness in the community, school and public recreation facilities. On the basis of this data, it can be concluded that the rural setting may be lacking wide choices of some activities and entertainment opportunities, but that the quieter and smaller setting was clearly preferred for raising a family and engaging in social interaction.

Interestingly, this pro-rural viewpoint is held by rural and urban residents alike (Bonner 1997; Korte 1983; Patton and Stabler 1979; Rayside 1991; Vidich and Bensman 1958; Willits and Luloff 1995; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992). Although few studies explore popular perspectives toward rural living, those that do so reveal small-towns are perceived to be closely-knit, accepting, friendly, neighbourly, supportive, quiet, peaceful, wholesome, safe, and relaxing. And rural communities are perceived to harbour intact families, satisfying relationships, and a healthy natural environment (Bonner 1997; Korte 1983; Jones 1995; Willits and Luloff 1995; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992). While the negative, backward, and disadvantaged perspective of rural areas and rural residents first proposed by Marx and Engels still does exist in popular culture, a rural idyll myth or "rural mystique" has taken hold (Willits, Bealer, and Timbers 1990). Rural and urban residents alike are ascribing — in the words of Willits, Bealer, and Timbers (1990) — "virtue and goodness to things, people, and places called rural— and viewing the city as the negative rural opposite" (Bonner 1997; Sim 1988; Willits and Luloff 1995; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992).

Supporting this pro-rural finding are national surveys of North Americans. Since the first Roper poll in 1948, rural and urban U.S. residents alike have consistently considered the rural countryside a better place to live. Canadians unveil a similar bias for rural living (Bonner 1997).

People Move to the Country

With this pro-rural perspective, for the first time since the advent of the Industrial Revolution, people are moving to the countryside. As a result, the Canadian rural population is rising in some areas and constant in others (Dahms 1995; Green and Meyer 1997). Fulton, Fuguitt, and Gibson (1997) reported that this change is a result of more people moving into rural areas and fewer people moving out. And, they noted, it entails a change in demographic structure.

More specifically, the population of nonfarmers is increasing and the population of farmers is decreasing. For example, in Canada today, the population of non-farmers is nearly six times greater than that of farmers (Green and Meyer 1997, 164). What's more, Fulton, Fuguitt, and Gibson 1997 revealed, this decade the population of high-school graduates, college graduates, and white collar workers is increasing in US rural communities — in both absolute and relative terms — and the rural population of young adults is decreasing less drastically than ever before, experiencing just a small net loss since 1990.

Sociological literature refers to the new rural growth as "counterurbanisation," "the new migration," "population turnaround," "nonmetropolitan turnaround," and "migration turnaround." Strong in the 1970s and weak in the 1980s, this population shift is apparently strong again in the 1990s (Fulton, Fuguitt and Gibson 1997; Johnson and Beale 1994) — "apparently," I say, because debate exists. Whether the population shift is a result of the degradation of urban living or of the attraction of rural living, sociologists, demographers, and ethnologists find it difficult to say (Berlan-Darque and Collomb 1991). But they have correlated it to a number of social shifts: improved transportation and communication, a growing elderly population free of employment limitations, preference for rural amenities like lakes and forests, disenchantment with urban living, and the development of rural recreation, resort, and retirement areas (Heuman and Marlet 1986). Fulton, Fuguitt and Gibson (1997 363) explained that the rural-population turnaround has been tied to the decreasing social and economic effects of distance, the declining differences between rural and urban areas, and the growing importance of non-economic factors in migration.

Another social shift associated with rural-population turnaround is the shift toward "viewing change in residence as an act of consumption rather than production (Ilvento and Luloff 1982, 221)" — that is, the shift from living at a place of employment to living at a place of preference. Mobility has brought a consumer approach to residence and a "consumer relation to place (Bonner 1997)." People now can weigh the rural community's costs and benefits. They are consumers in the market for "a good place to live," moving to the country in search of a favourable quality of life (Garkovich 1982; Ilvento and Luloff 1982; Williams and McMillen 1983). Even people who move to the country for economic reasons regard quality of life issues such a pollution-free environment, beautiful scenery, outdoor-recreation opportunities, safety, and small-town atmosphere (Bell 1992; Bonner 1997; Sim 1988) important.

Closely related to the topic of the rural-population turnaround is the topic of commuting. As numerous articles report, mobility has pushed rural transformation — as has the development of machinery and mechanization, advanced communication and technology, and escalating urbanization, consumerism, and globalization. In accord, Zimmerman and Moneo (1971) wrote that a "prairie community system" has developed. No longer are the Canadian prairie provinces dotted by a multitude of indistinct, homogenous, and autonomous rural communities, but, instead, farm cities, home-towns, and stop-off centres exist. Farm cities fulfill economic needs; home-towns fulfill high-school needs, and tiny stop-off centres fulfill the personal and psychological needs of a rural area (Zimmerman and Moneo 1971). In other words, rural communities are both differentiated in the services they offer and interconnected. Moreover, within this broad system, rural-community residents commute.

Which Rural Residents Commute?

According to Green and Meyer (1997), commuting in Canada is an insufficiently studied topic. Nonetheless, what is reported is that, in Canada, commuting involves a complex interdependency between rural and urban societies: there is urban to rural travel, rural to rural travel of fewer miles, and rural to urban travel of yet fewer miles. Within the Prairie provinces specifically, rural residents are most likely to commute short distances within rural boundaries — usually to farm cities (Fuguitt 1991). That said, it is the less educated and lower income residents who tend to commute to farm cities while the better educated and higher income community members tend to commute to major cities (Fuguitt 1991). As well, it is reported that in Canada's Prairie provinces rural commuters are slightly more likely to be middle-aged and male (Green and Meyer 1997). And people employed in agriculture, fishing, and trapping are least likely to commute while those employed in the wood and timber, the mining, the primary metals, the construction, and the manufacturing industries are most likely to do so (Green and Meyer 1997)

Why do Rural Residents Commute?

Research in Rural Sociology offers further insight into rural commuting. Research (Brown Hudspeth, and Odom 1996; Pinkerton, Hassinger, and O'Brien 1995) reveals that small-town and open-country residents travel far to acquire what their own communities don't provide. Subject to marketing, rural residents pursue name brands and the associated status now part of rural living (Brown, Hudspeth, and Odom 1996; Flora et al. 1992; Herrman and Beik 1968) and, too, they pursue self-uniqueness through consumption (Lynn and Harris 1997). In households having employment outside the community — an increasing phenomenon in rural communities — small-town residents are more likely to shop where they work than where they live (Pinkerton, Hassinger, and O'Brien 1995). In all, an increase in mobility has led to an increase in commuting among rural residents — which has led to a decline in sales, loss of businesses, greater resident outshopping and travel, fewer jobs, and a reduced tax base for local communities (Bastow-Shoop et al. 1995; Fora et al. 1992).

Other Rural Sociology research reveals that people who move to rural areas for quality of life reasons are more likely to commute than those who move for reasons of employment (Garkovich 1982). Why? There are few employment opportunities in small rural communities but many different opportunities in farm cities and major cities (Fuguitt and Brown 1990) — consequently, new residents must obtain and travel to employment "outside." Accordingly, rural communities with fewer than 2,500 residents have more people commuting out of them and fewer people commuting into them than do their larger rural counterparts, and they have a higher net loss of working population (Fuguitt 1991). In short, new rural residents tend to be commuters (Fuguitt 1991; Garkovich 1982; Green and Meyer 1997), especially when they hail from the city rather than from another rural community (Garkovich 1982).

How are the costs of commuting justified — the time, inconvenience, and monetary costs? For some, reported Parr (1987), they are outweighed by the preferences to live at a hierarchy level other than one in which they are employed, to separate physically from employment, and to experience a lower cost of living. For others, noted Fuguitt (1991), they are outweighed by a preference for low-density living (Fuguitt and Brown 1990). Reasons aside, however, rural residents who do commute expect their rural community "to provide a satisfactory place to live while they work elsewhere (Fuguitt 1991)."

Rural Community Stress

Regardless of why they commute to and from rural communities or why they move to and from rural communities, new residents usually differ from long-time residents. In what once were homogenous farming communities, for instance, few newcomers farm, most newcomers commute, and many newcomers maintain their strong social and economic ties to the city (Green and Meyer 1997). Moreover, some newcomers work at home, some visit on weekends, some come for holidays, some retire, and some return to their rural roots, changed by their outside experiences (see Sim 1988). In short, in many rural places, the once-homogeneous rural community is growing increasingly heterogeneous as people of diverse ages, purposes, incomes, backgrounds, experiences, interests, ideologies, opinions, beliefs, attitudes, and values move in (see Flora et al. 1992; Rogers et al. 1988; Sim 1988).

Newcomers Bring Stress

What results is change. And countless studies show change in the rural community is resisted (Allen 1993; Borich and Korsching 1990). Wrote Middlebrook (1974 45): "People who have been following fixed procedures for a long time may feel threatened by any suggestion to modify what they are doing. Further, they may have an investment in the status quo. If the present system is working well for them and yielding good economic rewards, why should they want a change?"

In general, long-time residents are opposed to residential growth — perhaps it is because they remember the good old days or perhaps it is because they consider it a threat to the small-town atmosphere they want to maintain, Sim (1988) suggested.

Covertly, long-time residents consider newcomers "alien," "a common enemy (Rayside 1991)" and "undesirable (Allen 1993). They consider newcomers — often wrongly (Allen 1993) — to bring such gesellschaft qualities as crime, unfriendliness, and lack of understanding about traditions to their community. Consequently, the newcomer "must pass through many gradients of membership," finding "it hard to break into the society they entered," noted Sim (1988 88). In fact, many newcomers never do integrate into the rural-community society (Frankfort-Nachias and Palen 1993).

Problems between long-time and new residents can run deep. A bipolar community sometimes results (Quinn 1994). According to Allen (1993), differentiation develops between long-time and new residents, a rift forms between community "insiders" and "outsiders," communication flounders between the two groups, misperceptions flourish, and the ability to work together falters. In Social Psychology terms, newcomers are an "external force" that provoke an us-versus-them viewpoint (see Baron and Byrne 1991; Forgas 1985; Taylor, Peplau, and Sears 1997; Middlebrook 1974; Pillari and Newsome 1998). From the us-versus-them viewpoint arises an us-versus-"the enemy" viewpoint around which exclusivity grows (Peck 1988, 61). While, indeed, exclusivity does enable the "us" to stay intact temporarily and, so, creates community cohesion in the short-term, it corrodes cohesion in the long-term (Flora al 1992). It creates cliques that are "defensive bastions against community (Peck 1988, 61)," failing to address the real problem (Fora et al. 1992).

Rural Communities Are Under Stress

It is not surprising, then, that rural communities are "under stress (Allen 1993)." Numerous articles (see Jacob, Bourke, and Luloff 1997; Levine and Perkins 1997) reveal that stress abounds in rural communities, especially in small towns per se (Hoyt, O'Donnell, and Mack 1995). Stress is "a negative emotional experience accompanied by predictable, physiological, biochemical, and behavioural changes designed to reduce or to adapt to the stressor — either by manipulating the situation to alter the stressor or by accommodating its effects (Taylor, Peplau, and Sears 1997)." Stress is a subjective experience that varies with the individual. Stress takes a toll on emotional and physical health. Indeed, stress reduces life expectancy (Berkman and Syme 1979; Fletcher 1991; Lasker, Egolf, and Wolf 1994), damaging the immune, endocrine, digestive, and cardiovascular (Elliot 1995) systems, eroding mental health, and causing in alcohol and drug abuse, domestic violence, neurosis, and depression (see Jacob, Bourke, and Luloff 1997; Levine and Perkins 1997).

The academic record reports many aspects of contemporary stress in rural communities, at both the individual and community levels (e.g. Levine and Perkins 1997; Jacob, Bourke, and Luloff 1997). For example, it examines stress resulting from the farm crisis of the 1980s — emotional problems, depression, marital strife, and family conflict (Armstrong and Schulman 1990; Belyea and Lobao 1990; Bultena, Lasley, and Geller 1985; Geller, Bultena, and Lasley 1988; Albrecht et al. 1988; Sundet and Mermelstein 1988). It examines stress resulting from the lack of privacy inherent in small-town living (Jacob, Bourke, and Luloff 1997). It explores the interrelationship between stress and quality of life (Patsiorkovski and O'Brien 1997), stress and community attachment (O'Brien, Hassinger, and

Dershem 1994), and stress and anomie (Friedle 1997). The literature examines the interrelationship between coping styles and psychological well-being (Haghighatgou and Peterson 1995; Knoop 1994; Nurmi et al. 1997), coping styles and physical well-being (Wonneberger, Lasch, and Elger 1994), and the interrelationship between stress, group performance, and group cohesion. The literature explores stress levels in different community types, sizes, and situations (Hoyt, O'Donnell, and Mack 1995; Jacob, Bourke, and Luloff 1997). And, too, it looks at prevalence and predictors of depression (Noll and Dubinsky 1995).

Emphasis has been placed on the emotional stress associated with the "farm crisis." "What began as an acute crisis in the farm economy evolved in a chronic condition affecting surrounding conditions. . . . In many respects, the farm crisis served to accelerate the population decline and associated social trends already in progress in many rural communities," Hoyt, O'Donnell, and Mack wrote (1995 708). What were some of the hardships surfacing in rural communities? Hoyt, O'Donnell, and Mack (1995) and others (e.g. Davidson 1989; Flora et al. 1992; Lind 1995) described a declining economic base and a resulting loss of opportunities.

What they explained was that the loss of agriculture-dependent businesses reduced jobs, accelerating the exodus of young residents — the rural workforce — and reducing the chances to attract outside businesses. A "rural ghetto" was created: intergenerational poverty increased, class-selective migration increased, and a downward cycle transpired. Low-wage labour-intensive industries seeking inexpensive land and cheap labour moved into rural areas and instigated downward economic and social mobility of workers and their children, exploitation of the land and the people, loss of — and thus increased cost of — goods and services, a falling tax base resulting from falling incomes and departing industries, and an inability for local government to help needy rural residents (Davidson 1990). At the same time, community members began to consider their town a dead-end, expecting and, indeed, encouraging children to leave for the city and beyond (Flora et al. 1992). With the decline in population, the reduction in extended family, and the increasing age of the population that remained, adequate informal and formal support diminished.

Today, professional assistance to rural residents experiencing stress today is limited or nonexistent, while community organizations provide insufficient support (Albrecht et al. 1988; Flora et al. 1992; Levine and Perkins 1997). Today, even the traditional support network of friends and family withers (Jason 1997; Kisko, Gill, and Murray 1994; Levine and Perkins 1997) as mobility carries residents well beyond rural-community boundaries, daily and permanently.

The Importance of Social Interaction to Individual Well-being

Critical to rural-community well-being are support networks (Levine and Perkins 1997; Lu 1997; Mercier and Powers 1984; VanderZee, Buunk, and Sanderman 1997). They safeguard community members from the ill-effects of stressful events (e.g. Bloom 1990; Dooley, Catalano, and Brownell, 1986; Hall and Nelson 1996; Husaini 1982). According to the literature, support networks are the relationships that people have with family, friends, and neighbours, providing listening, caring, compassion, and understanding. They arise from social interaction, for from one-on-one contact emerges friendship and from friendship emerges social support (see Baron and Byrne 1991; Taylor, Peplau, and Sears 1997). In essence, the Social Psychology literature indicates that social interaction lies at the basis of individual well-being and, thus, community (Wilkinson 1986; 1991).

Humans Require Human Interaction

From both the academic and popular record it is clear we humans *need* to interact. We seek the feelings of love and self-worth that family and friends supply. We crave the stimulation that social interaction provides; we require physical contact; we treasure a friendly word; we enjoy an admiring glance; and we value a trusted friend. We give a helping hand, lend an ear, share grief, give comfort, and provide reassurance. We form our beliefs based in part upon our social interactions. We make decisions based in part upon others' knowledge. We even base our self-concept in part upon comparisons with other people.

For we are social animals. We need other people for us to develop properly and we need other people for us to live healthy, normal lives. We cannot live in isolation. It is through social interaction that we are interconnected.

It is through human contact that we become who we are as individuals (see Baron and Byrne 1991; Middlebrook 1974; Taylor, Peplau, and Sears 1997). It is through other people that we hone our sense of self. Other people help us to determine our individual basic attitudes, our individual motives and reactions to those motives, our individual beliefs and ideas, and, therefore, our individual methods of processing information and understanding other people. In fact, according to the symbolic interactionist perspective of George Herbert Mead, W. I. Thomas, and others, it is the contact we have with other people that constitutes our very reality. Social interaction teaches, modifies, and alters the meanings and symbols that shape our thoughts and allow us to act and interact and ultimately, form groups and societies (see Ritzer 1988). It forms our mind, our selves, and our society (Mead 1934).

Not only is social interaction important to human development but — research in Social Psychology indicates — social interaction is crucial to individual health and well-being. It increases the odds of survival because, without it, stress and anxiety increase and people function poorly (Schachter 1959). Middlebrook (1974 213) noted that during a six-month isolation period at an inaccessible weather station, South Pole explorer Admiral Richard Byrd progressed from feelings of "peace and exhilaration" on day-one to "braincracking loneliness" on day 24 to deep deliberation regarding the meaning of life on day 63. Indeed, both the popular and academic record reveal that isolated persons become upset, disoriented, and easily influenced. From shipwrecked sailors to prisoners of war, isolated individuals report dreams of human contact, vivid dreams, images, hallucinations, fantacies, rituals, nervousness, depression, and, often, long lasting psychological disturbances (Zuckerman et al. 1968). Humans can tolerate social deprivation for only a short time.

Tolerance to social deprivation varies with the individual, in both duration and effect. Schachter (1959), for instance, found that of the five volunteers paid to be alone in a windowless artificially lit room without people, books, or media, one person remained in isolation for eight days, two persons for two days, and one person for just 20 minutes. Zuckerman et al. (1968) found that volunteers who were physically removed from but nonetheless in communication with the outside world began thinking less efficiently and immersing themselves in their own thoughts, dreams, and memories. In short, historical documentation, observation, and empirical studies indicate that people need face-to-face contact to function normally. The amount of contact each person requires differs drastically, however.

Social Interaction Addresses Basic Needs

Social interaction is important to ensuring individual development, health, and well-being. It is also important to addressing basic needs. The need to affiliate, for instance, is strong and almost universal although it, too, differs with the individual, both in disposition and in strength. According to Schachter's research (1959), people may be strongly motivated or weakly motivated to interact with other people. According to other research (see Baron and Byrne 1992, Taylor, Peplau, and Sears 1997), people may be motivated to interact for many reasons: for "social comparison" to reduce uncertainty (Festinger 1954), for "positive stimulation" to receive physical and emotional contact , for "emotional support" to boost their spirits, for attention and praise to improve their sense of self-worth (Hill 1987); and to reduce fear (Schachter 1959). Why do people rally during a crisis (see Tilly 1973) — coming together, working together, and cooperating closely? According to research, they want to compare perceptions (Festinger 1954), to decrease uncertainty and anxiety (Suls and Fletcher 1983; Rofe 1984), to obtain accurate information about what's to come, or to determine subsequent action (Morris et al. 1976).

Even more important than the need to affiliate is the need to have enduring relationships (Baumeister and Leary 1995). "It is not enough merely to be in the presence of others, rather, we want to have close ties to people who care about us," wrote Taylor, Peplau, and Sears 1997 (230). Certainly, according to 1981 survey (Research and Forecasts, Inc.) reported in Baron and Byrne (1991), people considered it *very important* to make time with, spend time with, and share personal feelings with friends. Furthermore, according to an earlier survey (Campbell, Converse, and Rodgers 1976) reported by Forgas (1985 247), people view relationships critical to a good quality of life, considering friends, happy marriage, and family life more important than financial and work achievement. So strong is the need for relationships — from birth until death, in humans and in other primates — that some researchers have suggested relationships are biologically based (see Baron and Byrne 1991; Taylor, Peplau, and Sears 1997).

Humans Need Relationships

All in all, social interaction sometimes leads to relationships, and relationships encompass emotional ties. Just as social interaction is important to human health and well-being, so, too, are the relationships, associational ties, and social support that result. To live without relationships is to live amid loneliness (Peplau and Perlman 1982). Loneliness is a topic of considerable research (Nurmi et al. 1997).

Research indicates that many millions of people today live amid chronic loneliness (see Levine and Perkins 1997; Middlebrook 1974; Taylor, Peplau, Sears 1997). Ranging from "twinges of discomfort to severe and persistent feelings of intense misery (Taylor, Peplau, and Sears 1997, 232)," two types of loneliness prevail (Weiss 1973). There is "emotional loneliness" that arises from the absence of a parent, spouse, or close friend, and there is "social loneliness" that arises from the absence of community involvement or from the absence of social integration offered by a network of friends; it is the latter that is particularly pertinent to this study. Whichever type they endure, however, lonely and unattached persons are more likely to suffer health problems.

Without relationships, people lack the social support that generates physical and psychological well-being (Noll and Dubinsky 1985; Nurmi et al. 1997; O'Brien, Hassinger, and Dershem 1994; Sundet and Mermelstein 1988). Research has shown that social support provides security and comfort, reassurance and worth, a sense of reliable alliance, guidance, and opportunities for nurturing (Weiss 1974). Social support decreases physiological distress (Lepore 1995) and increases longevity (Berkman and Syme 1979). Social support improves the functioning of the immune system (Kiecolt-Glaser and Glaser 1995) and the physiological response to cancer, heart disease, diabetes, and rheumatoid arthritis (see Taylor and Aspinwall 1990). Without social support, people are more likely to experience depression and eating disorders (Nurmi et al. 1997) and to suffer strokes, cancer, tuberculosis, and alcoholism (American Council of Life Insurance 1978). Without social support, people are more likely to have accidents and more likely to have higher mortality and suicide rates than a married person amid a network of intimate relationships (American Council of Life Insurance 1978).

The Importance of Social Interaction to Community Well-being

Just as social interaction is crucial to the health and well-being of the individual, so, too, social interaction is important to community well-being (Wilkinson 1991). For example, one-on-one interaction within the community can result in conformity, cohesion, negative behaviour, and communication. All such results are important to community — and all are of particular significance to this study.

Group Survival Requires Conformity

Conformity is the tendency to change one's beliefs or behaviours to fit group standards (Taylor, Peplau, and Sears 1997). Conformity is essential to group survival, ensuring stability, predictability, and longevity (see Baron and Byrne 1991; Forgas 1985; Pillari and Newsome 1998; Taylor, Peplau, and Sears 1997). As a result, every group automatically creates rules of behaviour or "social norms" that tell group members — formally or informally, explicitly or implicitly — what behaviours can and cannot be expected and which individuals will and will not be approved. In turn, group members share and conform to these norms. Keep in mind that people affiliate and join groups out of the basic need to belong: they want to belong, to be liked, to be approved of, to be accepted, and to be treated well.

Consequently, group members perceive social norms not as restrictions or impositions but as standards with which to identify and conform (Baron and Byrne 1991). In accord, they change their attitudes, values, and behaviours to adapt to those of the group. Interestingly, the change in attitudes, values, and behaviours may be an *actual* change as happens when the group provides knowledge, arguments, and information that instigates personal change (Schachter 1959) — or it may be only an *apparent* change as transpires when no new knowledge is provided and a member conforms just to be accepted

According to Baron and Byrne (1991) and Taylor, Peplau, and Sears (1997), Social Psychology research indicates that willingness to conform to social norms depends upon a number of factors: a person's own self-confidence, their identification with the group, their sense of belonging to the group, their commitment to the group, and their confidence in the group's being correct, knowledgeable, and trustworthy. Increase any one of these and the incidence and strength of conformity will rise. What's more, these writers explained, studies indicate group conformity depends upon a number of factors: the unanimity of group opinion, the group size, and cohesion, spirit, and homogeneity. Increase any of these and pressure to conform will rise, likelihood of conformity will rise — and ultimately conformity will rise. Should individuals fail to conform to group standards, however, they face social pressure or punishment. Criticism, ridicule, sarcasm, jokes, gossip, rejection, and exclusion are social controls that ensure adherence to social norms (Schachter 1959).

Positive Interaction Leads to Group Cohesion

From conformity arises cohesion. Cohesion is "the extent to which members are committed to shared norms and objectives, and have positive sentiments about each other and their group (Forgas 1985, 296)." It is "the extent to which a community offers its members a place to belong (Flora et al. 1992, 65)." It is solidarity or a sense of "we-ness (Flora et al. 1992)" or a "common bond (Sim 1988)" formed from positive social interaction. Effective and harmonious social interaction (Forsyth 1983) leads to interpersonal relationships (both acquaintanceships and friendships) and emotional ties that, in turn, connect people in a sense of shared identity (see Baron and Byrne 1991; Flora et al. 1992; Forgas 1985, Middlebrook 1974). The more effective and harmonious the social interaction, the stronger the group cohesion. In essence, when ties are numerous, strong, and enduring, when morale is high, and when there is a general sense of community, then cohesion is strong (Taylor, Peplau, and Sears 1997, 290).

To be precise, research shows that the more frequently group members interact and work together, the better they like each other, the more they enjoy each other's company, the stronger their friendships, and the more attractive they consider their group; the more attractive the group is to its members, the more committed the members are and the more cohesive the group becomes (Forsyth 1983). Research (see Baron and Byrne 1991; Flora et al. 1992; Forgas 1985, Middlebrook 1974; Pillari and Newsome 1998) also shows that support, respect, trust, and acceptance strengthen cohesion — as do cooperation, open communication, high morale, a sense of identification with the group and group values, both happy and painful experiences, an investment of time and energy, sacrifice-making, risk-taking, goal fulfillment, individual-needs fulfillment, in-group jargon, difficulty in joining the group, a physically welcoming environment, a positive comparison with other groups, and a lack of alternatives.

What's more, research indicates that cohesion is good for a group. Studies in Social Psychology indicate that from cohesion comes a reduction in conflict and an increase in personal involvement, satisfaction, morale, cooperation, sense of belonging, commitment, and motivation to work toward and fulfill goals (Hepworth and Larson 1990). Increase cohesion and you increase its benefits. As well, cohesion results in greater effectiveness in solving complex problems (Taylor, Peplau, and Sears 1997). Ultimately, cohesion results in resistance to external pressures and longevity.

Strong and Weak Ties Create Community Cohesion

Studies in Community Studies as well as Social Psychology have contemplated cohesion. Take, for example, Granovetter's (1973, 1985) "strength of weak ties" argument. Cohesion is a factor of both relationships and acquaintanceships, he wrote — that is, both strong and weak ties. Within communities, both strong and weak ties exist. Strong social ties are the intimate and long-lasting bonds connecting family and friends, and weak social ties are the informal and temporary contractual bonds connecting acquaintances. Weak social ties connect strong social ties, dispersing ideas and information among friendship groups and, therefore, linking community members and bonding the community. In the past, more weak ties than strong ties existed, and community cohesion was strong. Today, however, few weak ties remain. Strong ties still exist, but as local residents reach beyond community borders to meet needs and desires, the number of weak ties drops within the small rural community and rises outside of it. In other words, without the acquaintanceships to connect friendship circles, what results is a community divided into many small closely-knit groups. Fragmentation therefore flourishes.

In short, according to Granovetter's viewpoint, community cohesion — and, conversely, fragmentation — result from physical proximity or propinquity. Wilkinson (1986, 1991) concurred. He claimed that modern-day mobility and, thus, modern-day propinquity decreases social interaction and, thus, corrodes community cohesion and well-being. Without a doubt, research in Social Psychology falls in line, contending that propinquity is the first step in friendship and thus, cohesion (see Baron and Byrne 1991; Forgas 1985; Pillari and Newsome 1998; Taylor, Peplau, and Sears 1997). More specifically, Social Psychology research indicates that people who work or live near each other are more likely to like one another: that is, the more frequently they come in contact, the greater the chance that they'll become friends (Dixit 1985).

Why? Middlebrook (1974) summarized a number of explanations. For example, she wrote, it has been suggested that the more frequently people interact, the better they can understand each other and predict each other's behaviour — and, thus, the more pleasant they find their interactions. Because people prefer pleasant over unpleasant experiences, they'll work hard to make those frequent interactions pleasant. Pleasant interactions lead people to friendly conversation, recognition, identification by name (Baron and Byrne 1991, 233) — and, thus, "acquaintanceship" or weak social ties. As well, it has been suggested that the more frequently people interact, the greater their opportunity to learn about each other and to see each other as unique and familiar — and, thus, to like each other. And, too, wrote Middlebrook, perhaps social norms favour pleasant interactions among neighbours: look at how much more comfortable people are talking with the neighbours than with a stranger away from home.

The leap from acquaintanceship to friendship — from weak social ties to strong social ties — depends on additional conditions being met. Middlebrook (1974) wrote that it depends on each person's need to affiliate and on each person's positive response to the other's appearance. It depends on similarity and reciprocity: people like people who resemble them in attitudes, values, beliefs, and behaviour, who like them and who evaluate them positively, and who agree with them (Byrne and Nelson 1965). The greater the agreement, the greater their liking. As well, a positive context is required for friendships to develop: if people are alone or with someone they dislike, they are more open to making new friends.

Negative Interaction Leads to Fragmentation

Not only does friendship — and accordingly cohesion — result from propinquity, however, but, conversely, fragmentation results from unsatisfying or antagonist interaction. More precisely, Social Psychology reports that fragmentation can result from constant disagreement about how to solve group problems, unreasonable or excessive demands, dominating members, obnoxious behaviour, excessive time, negative evaluation from outsiders, and hurtful dynamics (Pillari and Newsome 1998). Such negative interactions decrease the attractiveness, commitment, and cohesion of a group — and, in fact, can incite people to leave (see Forgas 1985).

In short, just as cohesion is good for a group, fragmentation is detrimental. One particularly detrimental component of groups and, thus, of community is negative behaviour toward people of a certain social group, ranging from subtle actions to violence (see Taylor, Peplau, and Sears 1997). Research in Social Psychology points to a number of sources of prejudice (see Baron and Byrne 1991) including an us-versus-them or ingroup-outgroup way of making sense of the world called "social identity theory (Tajfel 1982)."

Social identity theory states that one reason people join groups is to boost their self-esteem through identification with that group — and that only if their group is the superior group can they elevate their prestige or standing (see Baron and Byrne 1991; Taylor, Peplau, and Sears 1997). In accord, to increase self-worth, group members of the group disdain, scorn, and antagonize members of another group. Furthermore, they perceive the world as two groups: their own group (the ingroup or "us") and another group (the outgroup or "them"). They draw social and physical boundaries around each, giving ingroup members positive traits, giving outgroup members negative traits, viewing outgroup members as identical — and, thus, stereotyping and disliking outgroup members (see Baron and Byrne). Interestingly, when ingroup-outgroup boundaries shift and outgroup members become ingroup members, prejudice against the former outgroup members dissolves (Gaertner et al. 1989). Interestingly, too, is that people who have recently experienced failure and, thus, have particularly low self-esteem are more likely to evaluate outgroups severely (Meindl and Lerner 1985).

Communication Strengthens the Group

So it is that having discussed conformity, cohesion, and negative behaviour, the topic of communication within community emerges important. Social Psychology literature (see Baron and Byrne 1991; Taylor, Peplau, and Sears 1997; Forgas 1985) explains that communication increases cohesion. Communication dampens negativity, allowing people to know rather than label and misjudge one another, thus circumventing hurt, deception, and anger. Communication fosters trust (see Forgas 1985). Communication fosters friendship; in fact, research indicates that where self-disclosure is commonplace, fragmentation is rare (see Pillari and Newsome 1998). What's more, Forgas (1985 294) noted, "communication is a source of power." The more access a person has to information, the more influence they have on group behaviour, the more satisfied they are — and the better the group performs (Forgas 1985).

Community Attachment

All in all, it is clear that social interaction is important in the formation and maintenance of personal relationships, social support, and, ultimately, community cohesion and well-being. Along a similar vein is its importance in the creation and maintenance of community attachment. For it is recognized that social interaction among community residents creates ties and sentiments that not only enhance individual and community well-being and unite a community, but that create community attachment as well (see Goudy 1990; O'Brien and Hassinger 1992). Studied in such fields as Community Psychology, Geography, Sociology, and Rural Sociology, sense of attachment has been linked to belonging, home, place, and even the elusive "sense of community." It is clear that these concepts are closely entwined.

For example, place is a bounded space to which we are "tied undetachably and without reserve, "Casey (1993) wrote. It "ushers us into the bedrock of our being-in-the-word . . . . subtends and enfolds us, lying perpetually *under* and *around* us." Home, Buechner (1996 63) wrote, "is a place, and in its fullest sense not just a place where you happen to be living at the time but a very special place with very special attributes which make it clearly distinguishable from all other places. . . . a place where you feel you belong and which in some sense belongs to you, a place where you feel that all is somehow ultimately well even if things aren't going well at any given minute." Belonging, Cohen (1982) wrote, "implies very much more than merely having been born in the place. It suggests that one is an integral piece of the marvelously complicated fabric which constitutes the community; that one is a recipient of its proudly distinctive and consciously preserved culture— a repository of its traditions and values, a performer of its hallowed skills, an expert in its idioms and idiosyncrasies." Sense of community, McMillan (1976 11) wrote, "is a feeling that members have of belonging and being important to each other, and a shared faith that members' needs will be met by their commitment to be together."

Key to each of these concepts is sense of attachment. According to the academic record, social ties "attach" a person to community and, thus, give rise to a sense of attachment. There is some — albeit limited — mention of land ties as well:

scholarly publications contemplating environmental values, sustainable community development, and place address both social and land ties, considering them as one package. What are social ties? Social ties are "networks of interpersonal relationships and associational ties (O'Brien and Hassinger 1992, 522)." Thus, sense of attachment is created through a network of relationships and ties — the same relationships and ties that provide social support and foster community solidarity. Accordingly, *community* attachment is the network of interpersonal relationships and associational ties within a bounded area. But what determines community attachment? What determines community ties?

Contrary to Tonnies' and, later, Wirth's (1966) viewpoint, community size and density are of little importance in the formation and maintenance of community attachment. Instead, research (Fischer 1975; Goudy 1990; Kasarda and Janowitz 1974) indicates that length of residence is the primary determinant of attachment. The longer a person resides in a community, the greater their opportunities to select and foster the relationships they desire and, thus, the more favourable their view of the community and the greater their sense of belonging, research reports. Also important — although less so (Goudy 1990) — are age and social standing (Buttel et al. 1979; Goudy 1990). In essence, "a longer term or residence, a higher social standing and a later stage in the life cycle relevant to employment each leads to a greater sense of community, more sorrow when forced to think about leaving, and a greater interest in local affairs." Note, however, that this implies that the longer a person resides in a community, the greater the one-on-one contact they have with other residents — contact necessary for friendship building. However, as Wilkinson (1991) pointed out based on Granovetter's (1973) work, today's dependency on trade and service-centres and lack of propinquity in rural communities reduce opportunities for interaction and so weakens their behavioural attachment and perhaps their social ties and thus their sense of belonging and community attachment. In support, Goudy (1990 194) found that the smaller the community, the smaller the proportion of friends who live there.

Another finding of research regarding community attachment is that it is multidimensional. Research indicates that community attachment is composed of numerous components including sentiment (Goudy 1990); satisfaction (Brown 1993); satisfaction with specific community attributes and social integration (St. John et al. 1986); social bonding and physical rootedness (Riger and Lavrakas 1981); sentiment, involvement, and "amity" or the degree to which individuals are enveloped in local friendship structure (Stinner et al. 1990). There are different and unrelated ways of being attached and there are different types of people attached in different ways (Gerson et al. 1977).

So concludes the literature review. I have described the concept of community, societal transformation over time, and classical social theory regarding that societal transformation. As well, I have discussed of the four sociological constructs relevant to this study's emergent themes: rural-urban differences, rural well-being, social interaction, and community attachment. I now turn to Part One of this dissertation, describing the history of the Rochester community.

PART ONE

From the Past the Future Comes

PART ONE

"When did life begin, or, some ask, thinking of babies, when does life begin? The answer to both questions is the same: When the planet was born 4.6 billion years ago at the collapse of a super-nova star. Inconceivably long ago, the Ecosphere began its mysterious, creative, life-giving evolution that still continues today."

Stan Rowe
Boreal Forest in the Global Context

The person who sees farthest into the future is the person who sees farthest into the past.

Bill Evans

If we speak of a healthy community, we cannot be speaking of a community that is only human. We are talking about a neighbourhood of humans in a place, plus a place itself: the soil, the water, its air, and all the families and tribes of the non-human creatures that belong to it. What is more, it is only if this whole community is healthy that its members can remain healthy and be healthy in body and mind and live in a sustainable manner.

Wendell Berry
Sex, Economy, Freedom and Community

The story of the Rochester community is the story of change. Born with the Universe, change has ground endlessly over the region that the Rochester community inhabits. What is familiar today is very different from that which was experienced yesterday and equally different from which will exist tomorrow. Furthermore, what is familiar today is linked intricately to the past and future. Like one frame of a film, the community today is but one piece of the story, understandable only in the context of the whole motion picture.

Therefore, it is to the past and the future that the present is connected. In both time and space, the land and the people of today are directly and intricately connected to the land and to the people of yesterday and tomorrow. Wrote Hill (1993 7), a look "archivally toward the past . . . can give us new understandings of our society and our disciplines that will take us with greater clarity and equanimity into our collective future." For this reason, an understanding of the Rochester community's future requires an understanding of its past and present.

For this reason, Part One of this dissertation chronicles the history of the region we call Rochester today. It begins with a look at the land, which *is* the past and is the foundation of the future too. The land is the origin, history, and internal structure of Earth, and the formations that mark the countryside. It is the climate — past and present — ranging from the global climate that formed continental glaciers to the microclimate that exists within a flower. It is the air and the water, elements, and minerals that cycle. It is the Sun's energy that flows, powering photosynthesis, the almost-magical process responsible for most life on Earth. The land is all living things that exist or have existed, dependent upon and inseparably linked to each other and to the world around them.

The land is the basis of human existence. At Rochester in particular, the land is the means, methods, and fuels upon which the region's first people and, recently, European immigrants have depended. In this small community, the land encompasses both the opportunities and the obstacles that have guided European settlement and shaped Rochester's development. Accordingly, an understanding of the land — of the region past and present — provides an important first step in an understanding of the human community.

But, obviously, this first step in understanding requires a look at the people who inhabit the land as well, from the people who first walked on Rochester soil some ten thousand years to their ancestors whose culture prospered, from the European immigrants who first established the Rochester community some one hundred years ago to the people who inhabit it now. Their actions, knowledge, and experiences together are interwoven into the fabric of the region and community today. Therefore, Part One of this dissertation describes not just the land of the Rochester region but human habitation as well. Chronicling the arrival of the first people, the invasion by the European fur trade, and the immigration and settlement of the homesteaders, Part One of this dissertation describes the interconnection through time between humans and the Rochester land and the impact of human beings upon Rochester's natural world.

4

THE LAND TAKES SHAPE

> The entire earth is but a point, and the place of our habitation but a minute corner of it.
>
> Marcus Aurelius, Roman Emperor

> Time teams up with that funny old fellow, chance, to give birth to a whole lot of miracles.
>
> Cuyler Goodwill
> In *The Stone Diaries* by Carol Shields

> The oldest word in the English language that still resembles its earliest form is land, which is descended from *landa*, the old Celtic word for "heath." It predates the Roman Empire (founded in 200 B.C.) by many hundreds of years.
>
> *Uncle John's Sixth Bathroom Reader*

The Rochester region has a story. It is a story of ceaseless change. It is a story of creation and obliteration, evolution and extinction, and an inextricable interconnection between living and nonliving things. It is an epic that encompasses thousands of millions of years of geologic processes too slow and too violent to comprehend and worlds almost too fantastic to conceive. From the plants and animals that native people harvested to the soil that Rochester farmers plow, from the gas that petroleum companies drill to the forests that timber companies clear, the story of the Rochester region unfolds.

This story begins with the origin of the Universe. It entails the formation of the Earth. One and the same, the Rochester region and the planet Earth have experienced the same past and face the same future. It has been over an unfathomable span of time that they have encompassed unimaginable transformation. Only change has been constant.

It is the purpose of this chapter to describe that change. It starts where a story of the land only can start — at the beginning of time. From the creation of Earth to the formation of the region, Chapter 4 describes the development of the Rochester landscape and the evolution of the flora, fauna, rocks, and minerals that exists today.

In the Beginning

It is theorized that inconceivably long ago all the matter and energy that exists today exploded in a "Big Bang" (See Allision and Palmer 1989; Birkeland and Larson

1989; Kaufmann 1991; Levin 1986; Thompson and Turk 1991). This explosion occurred some 15 billion years ago or some 15,000 million years ago. From it arose the Universe.

Then, some 10,000 million years later, our Sun formed. Contracting under its own gravitation, a cloud of gas and dust began to rotate. Faster and faster it swirled until it formed a disc with a dense stardust core. When ultimately the disc imploded, core temperatures of 1,000,000°C forced hydrogen to form helium and to release immeasurable amounts of energy in the process. Nuclear fusion was instigated — and the thermonuclear reactions of countless hydrogen bombs were initiated. It was in this way that the Sun began to shine.

Then, nine planets formed. Bound by the Sun's gravity, stardust swirled around the Sun. In time, the stardust cooled into chunks that, in time, coalesced into planets of which our Earth was one.

Originally, our Earth was a homogeneous body. But from a planet composed of roughly the same materials throughout to one composed of differentiated layers, it transformed — to a planet with a dense iron core, a hot liquid mantle, and a hard outer crust, to a planet with the potential for living organisms. The transformation transpired when Earth's temperature soared some 4,700 to 4,600 million years ago, causing the iron within the planet to melt and to sink to the centre. The homogenous planet then collapsed into a molten ball of rock. And gases critical to the formation of Earth's modern atmosphere and oceans escaped from inside. In the 400 million years that followed, the planet cooled. And a crust some fifty kilometres thick formed. Beneath this crust, driven by heat from Earth's molten core, hot molten rock or magma nearly 2,000 kilometres deep churned and flowed.

The magma cooled into plates. According to presently held theory, the crustal plates drifted over the mantle, moving past, over, and under one another. Where they collided, earthquakes shook, mountains formed, and volcanoes erupted; where they tore apart, earthquakes shook, rifts formed, and molten rock oozed. In time, continents were created, drifting over Earth on their continental plates, landing in all sorts of locations and positions, even — at least four times (Royal Tyrrell Museum of Paleontology 1994) — forming an enormous supercontinent.

Our Living Planet Forms

In time, this watery planet somehow engendered 30 million different kinds of animals. It was nearly 4,000 million years ago that complex molecules first arose.

> In those early days, lightning and ultraviolet light from the Sun were breaking apart the simple hydrogen-rich molecules of the primitive atmosphere, the fragments spontaneously recombining into more and more complex molecules. The products of this early chemistry were dissolved in the oceans, forming a kind of organic soup of gradually increasing complexity, until one day, quite by accident, a molecule arose that was able to make crude copies of itself, using as building blocks other molecules in the soup. . . . This was the earliest ancestor of deoxyribonucleic acid, DNA, the master molecule of life [of replicating organisms] on Earth.
>
> Sagan (1980 30)

Further, when specialized molecules united some 3,600 million years ago, the first cell formed. When one-celled plants united some 3,000 million years ago, multi-celled plants surfaced. About 2,000 million years ago, sex evolved, allowing the exchange of DNA and, therefore, new varieties of plants. About 1,000 million years ago, plants began to make oxygen. Eventually, they converted Earth's atmosphere from a mixture of volcanic gases into an oxygen-rich mixture that allowed animals to exist and — as a protective shield — allowed them to expand onto land (Gribbin 1981). For most of 3,600 million years, only simple ocean organisms existed, slowly creating conditions conducive to complex life-forms.

North America Forms

At the same time that early organisms first were emerging, a mountain range was building on the North American plate. It formed and, over hundreds of millions of years, it eroded. Some 2,800 million years ago (Royal Tyrrell Museum of Paleontology 1994) another mountain range formed in North America. It was the Precambrian Mountain Range that contained remnants of the first. Today, we know it as Precambrian Shield that lies deep beneath Rochester.

The Precambrian Shield is the core of North America — the basement rock of the continent. Visible in much of Canada as outcroppings of rounded worn bedrock, it lies buried in the western portion of the continent. In northeastern Alberta specifically, it drops from sight and sinks steadily beneath layer upon layer of sediment. Finally, where Alberta meets British Columbia, the Shield ends, its western margins unexposed under some seven kilometres of sediment (Mosshap and Shetson 1994). Where the Rochester region lies, some three kilometres (Stelck 1967) of layered, compacted, and cemented sediment blanket the ancient mountain range.

Over the eons, this sediment has transformed into rock. From sediments that have accumulated, from evaporated water that has crystallized, and from dead plants and animals that have compacted, sedimentary rock comprises shales, mudstones, sandstones, and conglomerates, limestone, coal, and oil and gas. It is sedimentary rock that composes the bedrock of the Rochester region.

The Paleozoic Era — 590 Mya To 250 Mya

Complex Organisms Arise

Although it was some 3,600 million years ago that organisms first surfaced, it wasn't until 543 million years ago that complex organisms emerged. Specifically, it was during the Paleozoic or "Early Life" Era — from 590 million years ago to 250 million years ago — that Earth's simple ocean organisms evolved into multicellular plants and animals from which modern plants and animals originated. It is believed that within a span of no more than 10 million years (Nash 1995), an array of plants and animals burst upon this planet. There were, for example, roundworms and bristleworms, sea cucumbers and jellyfish, corals, molluscs, and sea weeds. There were ancestors of modern-day sponges, starfish, and sea urchins. There were numerous arthropods as well — the leggy armoured ancestors of shrimps, crabs, crayfish, lobsters, and beetles. And there were primitive creatures with backbones that later evolved into fish, amphibians, reptiles, and, eventually humans.

From hard-shelled creatures to fish to amphibians to reptiles, animal species evolved and diverged (Table 4.1). Insects appeared on Earth. And, all the while, plants spread and diversified. During the mid-Paleozoic Era some 400 million years ago, plants moved rapidly onto land. Some 50 million years later, they formed forests — conifer forests with plants ten metres high and a thick underbrush of smaller shrubs. To be certain, biological diversity virtually exploded during the Paleozoic Era.

Meanwhile, the region on which Rochester now exists was located near the equator. The continental plate on which it rests had drifted hundreds of kilometres. Previously covered by seas, blanketed by ice sheets, gouged by rivers, torn at by winds, and baked by sunshine, the region was still to experience repeated flooding and drought.

Rocks and Minerals Form

Not only were animals evolving and the landscape transforming, but Earth underground was changing as well. In an evolution all of their own, rocks and minerals were forming. They were cycling. They were oozing and exploding from Earth's depths, cooling, eroding, accumulating, compacting, and metamorphosing under pressure and heat. Granite, for example — a primary component of the Precambrian Shield deep beneath Rochester — formed when quartz and feldspar in molten rock crystallized. Clay — a component of Rochester's soils — formed when granite eroded. Shale formed when clay accumulated in layers and cemented together; and mica and slate formed when deeply-buried shale was compacted and heated. Other rocks and minerals like copper, gold, lead, and zinc also formed during the Paleozoic Era. And organic sedimentary rock like limestone or the oil and gas found beneath Rochester first formed during this time period.

Oil and natural gas formed where marine organisms once flourished. Specifically, where organisms thrived and organic productivity was high — typically in coastal waters — and where the oxygen supply at the bottom sediments was too low to decompose all organic matter (Press and Siever 1986), oil and natural gas formed. Oil and natural gas are the complex mixture of many chemical compounds including hydrocarbons. Hydrocarbons are molecules of hydrogen and carbon, which are two basic building blocks of organisms. Very simply, oil and natural gas are the remains of ancient plants and animals, "buried, transformed and preserved in the sediments (Press and Siever 1986, 579)."

What happened was this: Plants and animals in the coastal waters blanketed the sea floor at death, and, there, where essentially no oxygen existed, they lay buried and preserved. From their accumulation over time and their subsequent compaction over millions of years, came pressure and heat. And from pressure and heat came a chemical reaction that changed some of the plant and animal remains into liquid and gaseous hydrocarbons — in other words, into oil, natural gas, or sometimes into both.

When the oil- and gas-laden sediments compacted, the oil and gas were squeezed out. Driven by the water within the sediments, the oil and gas traveled through adjacent rocks, some of which were composed of sulfate minerals with which they reacted chemically to produce hydrogen sulfate or "sour gas." Upon reaching porous and permeable rock, the water-oil-gas mixture moved in.

The water-oil-gas mixture penetrated the pores of limestone, sandstone, and ancient buried coral reefs. The water part of the water-oil-gas mixture saturated the rock formation and the buoyant oil and even-more buoyant natural gas moved upward to the highest point attainable. Eventually, they reached either Earth's surface and were dissipated or impermeable rock like shale and were trapped. If trapped, the oil and natural gas formed pools of gas on top of oil on top of water. Trapped in pools beneath the Rochester region today, marine organisms of the eons lies buried.

Earth's Most Catastrophic Extinction Occurs

It was some 250 million years ago that the Paleozoic Era came to an end. It was then that plants and animals died en masse. More than 95 per cent of all Earth's species disappeared forever (Royal Tyrrell Museum of Paleontology 1994). Of the many extinctions Earth has experienced, none was more catastrophic than that of the Paleozoic Era.

The Mesozoic Era — 250 Mya To 65 Mya

Plants and Animals Evolve

The Paleozoic extinction marked the end of the Paleozoic Era and the beginning of the Mesozoic or "Middle Life" Era. It was during the Mesozoic Era from 250 to 65 million years ago that living things diversified drastically. The plants and animals that survived the Paleozoic extinction adapted to the ever-changing world around them. Through evolution — reproduction, mutation, and selective elimination — species changed into forms radically different from their ancestors.

There were amphibians. There were, for example, the labyrinthodonts of the Paleozoic Era that lived mostly in water and vanished suddenly, leaving behind frogs and toads to flourish (Goetz 1988). According to the Royal Tyrrell Museum of Paleontology (1994), there were fish of all forms, including sharks and barracuda-like predators. There was the *Bobasatrania* , a giant flat diamond-shaped fish that apparently ate shrimp and small fish. There was the *Albertonia*, an average-looking fish with long pectoral fins used for sprinting or stirring up food on the ocean floor or sexual display. And there were reptiles, too. The cotylosaurs, for example, diversified into turtles and marine reptiles like the dolphin-looking ichthyosaurs, "fake lizards" or nothosaurs, mollusc-eating placadonts, and the thalatosaurs or the reptile counterparts of the sea otter. The cotylosaurs diversified into the crocodile-looking thecodont reptiles as well, which diversified into crocodiles and dinosaurs.

Another mass extinction some 210 million years ago killed off the thecodonts, allowing for the rise of the dinosaurs. Existing already for some 32 million years (Monroe and Wicander 1992), some dinosaurs were fast bipedal animals (Royal Tyrrell Museum of Paleontology 1994). Moreover, some dinosaurs were enormous with tiny brains, while others were small with relatively large brains and well on their way to intelligence (Gribbin 1981, 264).

During the Mesozoic Era, dinosaurs flourished in the jungles and on the plains including in what now is Alberta. Other creatures existed here as well. Pterosaurs glided through the air, fur-covered creatures with a wingspan measuring between sixty centimetres and fifteen metres (Royal Tyrrell Museum of Paleontology 1994). In time, some 140 million years ago (Royal Tyrrell Museum of Paleontology 1994), Archaeopteryx existed, a feathered dinosaur that evolved into birds. Additionally, there were small rat-like mammals and the first flowering plants that led to today's broad-leaved trees. Among the best known of the invertebrates or animals without backbones are ammonites — snail-like sea animals that had already lived for hundreds of millions of years.

Coal and Peat Form

Amid this biological diversity, Alberta's coal and peat were forming. Like oil and gas, coal and peat formed from living things — from plants, specifically. Falling into stagnant waters and water-logged soils, dead plants immediately were buried by more dead plants and plant parts, accumulating faster than they could decay and becoming "pickled." With time, physical and biochemical processes transformed the dead plants into peat, "a porous brown mass of organic matter in which twigs, roots, and other plant parts can still be recognized (Press and Siever 1986, 327)." With more time and deeper burial, peat changed into coal, deeply buried, compacted and — with its water squeezed out — chemically transformed. Approximately ten metres of peat made one metre of coal (Royal Tyrrell Museum of Paleontology 1994). At Rochester, coal runs in seams throughout the bedrock.

Another Mass Extinction Occurs

It was toward the end of the Mesozoic Era some 65 million years ago that dinosaurs suddenly vanished — animals that had existed roughly 177 million years on Earth or some 175 million years longer than humans in any form have existed. Ammonites vanished, too — invertebrates that were as much a part of the Mesozoic Era as dinosaurs. Indeed, 60 to 80 per cent of all living species reportedly disappeared (Royal Tyrrell Museum of Paleontology 1994). Why? No one knows. For whatever reason, all floating and swimming marine species and many land species perished. What survived were most bottom-dwelling plants and animals, birds, fish, turtles, crocodiles, lizards, snakes, frogs, and salamanders, and some mammals.

The North American Plate Drifts North

Before this massive die-out, "Pangaea" broke apart. Formed late in the Paleozoic Era, this supercontinent lay primarily in the southern hemisphere. There, some 200 million years ago, it is theorized that Pangaea started to divide into seven land masses. Grinding against the oceanic plate, the North American plate drifted into northern latitudes.

Where the North American and oceanic plates met — where Alberta and British Columbia meet today — earthquakes shook, volcanoes erupted, ash blew west, and bedrock buckled to reveal sediment buried millions of years earlier. In this way, some 120 million years ago, the Coastal Mountains, Cascade Mountains, and Rocky Mountains of North America were formed. Blocked by these mountains, the Pacific Ocean no longer bathed the Rochester region; instead, inland seas and, later, a seaway connecting the Arctic Ocean and the Gulf of Mexico washed over the region.

From tropical paradise to wetlands, the Rochester region transformed during the Mesozoic Era. Ocean bottom became shoreline. Shoreline became delta and Everglade-like swamp, filling with eroded debris as uplifted mountains crumbled and North America's interior rose. Delta and swamp became rainforest. Rainforest flourished, fertilized by volcanic ash and watered by Pacific rains. And then — as the continent moved north and mountains loomed high enough to block moisture — rainforests disappeared, drying into woodlands and then into grasslands.

The Cenozoic Era — 65 Mya To Present

The end of the dinosaurs marked the beginning of our present-day Cenozoic Era — the "Current Life" era. It was during the Cenozoic Era that the Rocky Mountain uplifted to heights higher than today, and that the Canadian Interior Plains filled with mountain sediment. Rivers flowed northeast and southeast from the mountains throughout the plains (Mosshap and Shetson 1994), carrying sediment and carving deep broad channels. Water and wind eroded the landscape. In the many millions of years that passed, the Rocky Mountains wore down, and the plains wore smooth and low with rough areas existing only where the thickest or most resistant debris lay (Klassen 1989).

Biodiversity Flourishes

It was during this period that flowering plants and mammals flourished. The extinction of dinosaurs provided conditions necessary for the small and primitive mammals to survive. And survive they did. On nearly every continent, mammals evolved into all shapes and sizes, filling niches on land and, eventually, back at sea. For some 63 million years, the evolution of mammals proceeded unimpeded.

In Alberta, it was a warm, wet climate in which mammals first evolved. In conifer forests and brush that was graced with rivers, lakes, marshes, and swamps, there existed primitive primates, tiny ancestors of hoofed animals, and predators like hyenas, cats, dogs, and bears. There were birds, snakes, turtles, amphibians, and fish as well (Royal Tyrrell Museum of Paleontology 1994). Later, as Alberta's wetlands gave way to woodlands of alder (*Alnus* spp.), oak (*Querus* spp.), walnut (*Juglans* spp.), and elm (*Ulmus* spp.), there were more species of mammals yet. Later still, as woodlands gave rise to grasslands, more species evolved, adapting to and diversifying in the changing environment. Large hoofed-animals evolved on the grasslands, for example, diversifying into the swift and highly efficient grazers we know today, and expanding their range.

By some 2 million years ago, biological diversity soared in what is Alberta today. As the millennia passed, even more species of mammals formed. Some evolved on the plains, and others evolved elsewhere and immigrated later.

Just fewer than 2 million years ago, noted Klassen (1989), there were mammals of all description, the familiar and bizarre. For example, there was the elephant-like mammoth *(Mammuthus* spp.*)*, the yak-like woodland shrubox *(?Euceratherium* spp.*)*, the lanky short-faced bear*(Arctodus simus)*, and the sabre-toothed cat *(Smilodon fatalis)* with its giant canines likely used for stabbing. There were at least two species of camel *(Camelops* spp.*)*, two species of horse *(Equus* spp.*)*, one species of peccary*(Platygonus ?bicalcaratus)*, one species of ground sloth *(Megalonyx* spp.), one species of llama *(Hemiauchenia* spp.*)*, and the Pleistocene lion *(Felis leo atrox)*. And there were species we still see in Alberta today: the white-tailed deer *(Odocoileus virginianus)*, timber wolf *(Canis lupus)*, coyote *(Canis latrans)*, lynx *(Lynx lynx)*, bobcat *(lynx rufus)*, black-footed ferret *(Mustela nigripes)* , spotted skunk *(Spilogale putorius)*, badger *(Taxidea taxus)*, raccoon *(Procyon lotor)*, and Richardson's ground squirrel *(Citellus richardsonii)*.

Millennia later, there were more species still. Approximately 1 million years ago, there were two more species of mammoth, three more species of horse, another species of ground sloth *(Paramylodon harlani)*, the red fox *(Vulpes vulpes)*, beaver *(castor canadensis)*, and white-tailed prairie dog *(Cynomys leucurus)*. By 600,000 years ago, there was another species of camel, another species of deer *(Odocoileus* spp.*)*, the muskrat *(Ondatra zibethicus)*, porcupine *(Erethizon dorsatum)*, townsend hare *(Lepus townsendii)*, eastern cottontail rabbit *(Sylvilagus floridianus)*, and meadow vole *(Microtus pennsylvanicus)*. By some 130,000 years ago, there were two more species of musk ox *(Ovibos moschatus, symbos cavifrons)*, two more species of llama, one species of bison *(Bison* spp.*)*, elk *(Cervus canadensis)*, woodland caribou *(Rangifer tarandus)*, and mountain sheep *(Ovis canadensis)*. Later still, another species of mammoth and two more species of bison roamed.

Then came the Great Extinction.

The Ice Age Descends

It was some 2 million years ago that Earth's ever-changing climate began cooling. It was during this cool period — the cool period of today — that the climate cycled repeatedly from glaciation to interglacial. A glaciation is an intensely cold period or "ice age" that is thought to arise every 100,000-or-so years and an interglacial is a warm, sometimes hot, period that is believed to last some 10,000 years. Why do glaciations occur? Some researchers point to cyclic changes in Earth's orbit around the sun cause cyclic changes in the seasonal distribution of sunlight falling on high latitudes; ultimately, the climate alternates between that which favors the growth of glaciers and that which favors their disintegration.

The most recent glaciation — the Wisconsin glaciation — began some 75,000 years ago. Although the climate warmed and cooled periodically during the millennia that followed, it was not until some 10,000 years ago that the Holocene interglacial began. It is the Holocene interglacial in which we live today. It is nearly over.

The "Great Extinction" Occurs

During the Wisconsin glaciation, ice sheets advanced over the northern hemisphere — specifically, over most of Canada and the northern United States. In the cold climate, snow accumulated and crystallized under increasing weight, forming ice that formed glaciers that formed vast ice sheets. Outward, these ice sheets flowed. They eroded soils and rocks, scratched and smoothed boulders and bedrock, wore down hills, and filled in valleys. A kilometre deep in some places, these ice sheets knocked down whole forests, displaced all organisms, and even changed weather patterns.

When the ice sheets retreated, they created a world unlike anything experienced in the Cenozoic Era. Wrote Pielou (1990, 2):

> Sometimes windswept deserts developed when fierce winds, unimpeded by vegetation, picked up sand and dust uncovered by the retreating ice sheets and built it into huge dunes. At other times, forests invaded the margin of the ice itself. For long periods, the Midwest was covered by lakes greater by far than the modern Great Lakes, on which massive icebergs floated and whose northern shores consisted of tall cliffs of ice. Swift rivers flowed along the ice margin and shifted their courses abruptly as the ice melted. Sometimes dams of ice collapsed, allowing tremendous floods to cascade across the land, shifting huge boulders with their torrential flow.

Glacial advances and glacial retreats assaulted the rich biological diversity of the Canadian Interior Plains where Rochester is today. What exact species were lost we'll never know. Extinguished or driven from the plains, plants and animals that had evolved and flourished during the Cenozoic Era perished.

Climatic cooling gradually killed off the less hardy plants. Individual plants died, and species zones shifted south. Animals could move and sometimes evade the ice and cold to repopulate deglaciated landscapes. With each interglacial, however, animal species returned to deglaciated areas in ever-decreasing numbers. In some cases, species failed to return at all (Klassen 1989).

Some animal species adapted, however. Some species initiated seasonal migrations. Some changed their geographic range. Some subsisted on more than one food. Elk, for instance, subsisted on either grasses or twigs, while mammoths and horses required a strict diet of grasses (Pielou 1990). Ultimately, the hardiest and most adaptable species endured, many species vanished, and new species evolved.

In addition to elk, the woodland caribou, white-tailed deer, mountain sheep, grizzly bear *(Ursus arctos)*, black bear *(Ursus americanus)*, timber wolf, coyote, cougar *(Felis concolor)*, lynx, bobcat, wolverine *(Gulo gulo)*, badger, red fox, and grey fox *(Urocyon cinereoargenteus)* survived (Klassen 1989). But numerous species vanished, mostly large mammals. For example, all species of mammoth and ground sloth died out. The peccary disappeared. The bison of today *(Bison bison)* survived but other bison species vanished. The tundra muskox *(Ovibos moschatus)* survived, but the woodland muskox *(Symbos cavifrons)* vanished. Gone, too, was the woodland shrubox, a shaggy animal with curving horns and a skull apparently adapted for head-to-head combat.

And gone were many of the predators, scavengers, and parasites that depended upon these mammals. The sabre-toothed cat, Pleistocene lion, dire wolf *(Canis dirus)*, and giant short-faced bear all vanished. Some species of eagles, vultures, and condors became extinct, too. Of the predators, only the smaller ones remained widespread on the Canadian Interior Plains (Klassen 1989).

There was a wave of extinctions. Of the thirty-two genera of animals (Martin and Wright 1967) that perished during the Wisconsin Glaciation, most died out as it ended. Whereas in past extinctions, better adapted competitive species filled niches vacated by the extinct species; in the Great Extinction, no species filled the vacated niches; the extinct never were replaced (Fiedel 1992). Most of the extinct were large mammals — creatures weighing more than fifty kilograms. Few small mammals disappeared. And there was no significant increase in extinctions of marine animals.

Why these animals disappeared is unclear. Maybe they succumbed to the changing environment. Maybe they fell prey to human hunting. Or maybe they vanished in response to a massive catastrophic event. Debate continues.

The Rochester Region Takes Shape

It is only within a span of 4.6 billion years that 14,000 years can seem minute. But, indeed, 14,000 years are but a geologic blink of an eye — a time period during which the familiar Rochester landscape evolved. Specifically, it was during the past 14,000 years that Rochester's gentle swells, knobby hummocks, and ridges were created. As the continental ice sheet retreated, familiar landforms developed and the Tawatinaw Valley formed. It was during these millennia that the mixedwood boreal forest evolved. The Ice Age and the antecedent warm period created the world that Rochester residents call home today.

Ice Encases the Rochester Region

It was from the most recent glaciation — the Wisconsin Glaciation — that the landforms of the Rochester region developed. From west of Hudson Bay, the Laurentide Ice Sheet flowed southwest, and converged with the Cordilleran Ice Sheet from the Rocky Mountains southwest of where Edmonton stands today. From there, the two ice sheets flowed south.

Beginning some 21,000 years ago (Morton 1993), the Laurentide Ice Sheet advanced over what today is the Rochester region. Scraping, grinding, and pulverizing bedrock, plucking boulders, collecting gravels, sands, and silts, the ice sheet flowed over the countryside, blocking rivers draining northeast. Then, some 18,000 years ago as the climate warmed, the Laurentide Ice Sheet began to retreat. Insufficient snowfall "starved" the glacier and warmer temperatures melted it. Consequently, the ice sheet thinned, stagnated, and retreated east-northeast. It began its withdrawal from Alberta some 14,000 years ago (Klassen 1989), and was gone from much of the province by 11,000 years ago (Klassen 1989). Even in today's interglacial period, however, some ice remains — in the high mountains of

Alberta, British Columbia, and Alaska and in some polar regions.

As the Laurentide Ice Sheet retreated, its entire periphery shrank. Its southern borders receded rapidly (St-Onge 1972a), and, there, meltwaters flowed. Meltwaters flooded newly exposed land, forming enormous lakes that changed shapes and sizes as the ice front shifted. These glacial lakes displaced tundra and boreal communities, obstructed the migration of plants and terrestrial animals, and — when they drained — left mud in which plant and animal recolonized.

According to St-Onge (1972a, 1972b), during deglaciation, one such glacial lake existed just east of the Rochester region. This giant lake drained through a broad shallow bedrock valley that trended northwest-southeast just south of where the Rochester region lies today (St-Onge 1970) — a valley not completely filled by glacial debris. Through this valley and into what today is called the Saskatchewan River, the lake's water flowed.

After the ice sheet retreated from the Rochester region, it advanced once more (St-Onge 1972a). From north near what is Athabasca, Alberta today, a glacial lobe flowed over at least part of the Rochester region, flanked by stagnant ice and meltwater channels. When it advanced, it reworked debris that the ice sheet had deposited initially (Tedder, Ferguson, and Karpuk 1981) — debris composed of silts, sands, gravels, and boulders gleaned from bedrock sometimes thousands of kilometres away. No one knows for certain when the ice sheet finally left the Rochester region. St-Onge suggested some 10,700 years ago (St-Onge 1972a), but other scientists have speculated earlier. Regardless of when it left, *what* it left is of particular interest — for the debris that remained and the water that pooled and flowed shaped the Rochester landscape.

The Landscape Develops

In its final retreat, the ice sheet deposited debris of different depths, ranging from a few centimetres to more than thirty-five metres (St-Onge 1972b; Yoon and Konoza 1974). Rivers flowed. Ice blocks as large as a kilometre square (Press and Siever 1986) melted beneath a blanket of debris and vegetation. The ground slumped and sank, and lakes formed and drained.

From that past came the Rochester region's present landforms (Fig. 4.1). In particular, a jumble of debris was deposited when the ice sheet advanced. Boulders, gravels, sediments, and silts lodged under the ice were plastered beneath it as it flowed forward, forming a mantle nearly one to six metres deep. That mantle today composes the community's broad, gently rolling plains (St-Onge 1972b). More unconsolidated debris was deposited when the ice sheet melted or "receded," the debris inside and on top of the ice blanketing the sediment laid earlier. Some of this debris formed the community's "hummocky" terrain — its ridges, knobs, and depressions common in the east and west.

Indeed, hummocky terrain arose when ice blocks split off from the retreating glacier, and took hundreds and maybe thousands (Emerson 1977) of years to melt. Washed over by sediment-laden water, buried under accumulating debris, and lodged with rock fragments of all sizes, these ice blocks deposited several metres of debris in the process. Where debris-filled crevasses and holes existed, ridges and knolls remained, some measuring thirty-five metres deep (St-Onge 1972b). Where the ice blocks themselves melted, depressions existed. Meltwater pooled in these depressions, and — where lower than the water table — groundwater seeped into them, creating lakes and ponds.

Armstrong Lake in the western reaches of the Rochester region lies in one such depression amid ridges and hummocks of sand and silt (Tedder, Ferguson, and Karpuk 1981). Here, another lake existed previously (St-Onge 1972a; Tedder, Ferguson, and Karpuk 1981). Indeed, throughout the western parts of the Rochester region, over disintegrating ice blocks, the ground that was forming slumped and sank, and meltwaters flowed and pooled. Lakes formed, drained, and evaporated, leaving behind sediment. Consequently, what once were lake bottoms now are depressions in Rochester's landscape, lined with clays and silts (Tedder, Ferguson, and Karpuk 1981).

During deglaciation, meltwaters flooded much of the Rochester region, depositing stratified layers of gravels, sands, and silts called outwash. Meltwaters pooled in depressions. And meltwaters laid a veneer of outwash over glacial till. As a result, sands and gravels today blanket much of the Rochester region's terrain — in the north adjacent to the Tawatinaw River and in the southeast near Stony Creek, for example (Tedder, Ferguson, and Karpuk 1981).

Meltwaters Create the Tawatinaw Valley

Glacial meltwaters not only flooded the deglaciated landscape, but they cut into the land as well. For example, it is considered likely that glacial meltwaters carved the most obvious landform of the Rochester region: the Tawatinaw Valley. My examination of stereographs suggested that this steep-sided, flat-bottomed valley was a major glacial meltwater channel (Rutter personal communication, 1995). St-Onge concurred in his 1970 discussion of Tawatinaw area geomorphology. Specifically, he wrote that the Tawatinaw Valley was the early Athabasca River channel, carved when the Laurentide Ice Sheet obstructed the original downslope channel to the north. Glacial meltwaters flowed through a broad shallow depression that extended south from Athabasca, he explained, pouring into a northwest-southeast trending depression south of the Rochester region, and draining into what is the Saskatchewan River today.

As the meltwaters flowed, they cut into glacial till and perhaps into the shale and sandstone bedrock (Tedder, Ferguson, and Karpuk 1981). Ultimately, they carved a channel more than sixty metres deep and nearly two kilometres wide. As they flowed, they deposited gravels, sands, silts, and clays onto the slopes and floor of the channel, and — where stagnant ice existed — washed sediment inside and on top of the ice blocks, creating hummocks. As water pooled, sediments settled, creating yet more of today's gravel and sand deposits. Water and wind wore away the deposits. Sands in the valley, for example, were reworked by winds to such an extent that they formed sand dunes just south of the Rochester region (Kumar 1973).

The Tawatinaw River Forms

Even after glacial meltwaters abated, water streamed through the meltwater channel.

This was water of the Tawatinaw River, a river fed by lakes, groundwater, and precipitation. Cutting into bedrock, it drained the valley floor, eroding the mounds of outwash into a level floodplain. When, some 9,000 years ago (Klassen 1989), the Laurentide ice sheet no longer obstructed the Athabasca River's downslope route, the Athabasca River and the Tawatinaw River both changed direction. The Athabasca flowed north into the Arctic Ocean, and the Tawatinaw flowed north into the Athabasca River.

Organisms Return to the Rochester Region

An Arid Climate Predominates

An arid climate existed during the ice sheet's retreat — and prevailed throughout the following millennia. From deglaciation through some 4,000 to 3,000 years ago, the Rochester region experienced warmer and drier conditions than those of today. In a rapidly changing climate, the Rochester region experienced small droughts within long intense droughts of many millennia (Schweger and Hickman 1989).

Especially arid conditions existed between 9,000 and 6,000 years ago when widespread drought ensued (Schweger, Habgood, and Hickman 1981). Amid warmer summer temperatures, colder winter temperatures, and high evaporation, lake levels plummeted and lake salinities increased (Schweger, Habgood, and Hickman 1981). Soils eroded and drifted (Klassen 1989). Winds blew extensively, creating storms of dust, grit, and sand from glacial till (St-Onge 1972a) that buried vast expanses of land under what today is clay, silt, and sand (Klassen 1989). Around 6,000 years ago, progressively cooler and moister conditions ensued, however, reducing the severity of the drought. Nonetheless, it was not until 4,000 years ago that today's precipitation levels arrived (Vance 1986a). And it was not until 1,000 years ago that today's temperatures and, therefore, growing season came to the Rochester region (Vance 1986a).

Soils Develop

This climate in concert with time itself transformed the glacial-ravaged landscape into the boreal forest. Over the millennia, temperature, precipitation, wind, and flowing water worked on the land, determining the vegetation and the degree of biological activity of the region. First, they wore away at the fresh glacial debris and the nutrient-rich deposits brought by the ice sheet. Then, with invading organisms, they formed soils — "the common ground between the living and the nonliving world (Barbour, Burk, and Pitts 1980, 398)."

Mineral soils are the mixture of mineral grains, organic material, air, and water. The mineral soils that formed in the Rochester region depended upon the rocks from which minerals grains eroded, the numbers and kinds of organisms that inoculated the substrate with organic matter, the topography, the climate, and time. To be sure, the different soil types that overlay the Rochester region today reflect their different histories of development. Although no one knows the rate at which western Canadian soils developed (MacDonald and Reid 1989), it is estimated they took thousands of years to form (Bentley 1996).

Plants and Animals Return

From the mineral soils, plants grew, and a world hospitable to animals emerged. Plants and animals came from refugia — unglaciated lands upon which they had survived. Some immigrated from mountain summits and the coastal plains. Others came from large refugia. North America south of the ice sheet, for example, was a refugium as were the now-submerged coastal plains east of the ice sheet and the land mass called Beringia that existed between Asia and North America during the last glaciation.

It was from Beringia that moose, grizzly bear, and bison immigrated to the Rochester area. It was via Beringia, in fact, that humans came an uncertain number of thousands of years ago. Even plants came from Beringia — for example, the dwarf birch *(Betula pumila)*, a shrub surrounding forested wetlands, may have immigrated from Beringia (Ritchie 1984). Most of the major trees of the Rochester region, however, colonized from the south. Timber wolves and wolverines pressed north from the south. And northern pike *(Esox lucius)* arrived from both Beringia and the south, with stock of the Rochester region, in particular, originating in the Missouri and Mississippi Rivers (Pielou 1990). Other freshwater organisms came to deglaciated areas as freeloaders. Eggs of aquatic snails and seeds of aquatic plants, for example, might have come on the feet of migrating ducks and shorebirds (Pielou 1990).

What came first to Rochester's often unstable and eroding (MacDonald and Reid 1989) mineral soils were pioneer plants. Pioneer plants prepared the freshly exposed soils for the more demanding stable and long-lived plant and animal communities to come. They fractured rock with their roots, blocked wind-borne soils and seeds, provided shade, and fertilized the soil.

Nitrogen-fixing plants, for example — the only plants that can flourish on nitrogen-deficient soils — inoculated the soil with nitrogen. They have bacteria living on their roots that take nitrogen from the air and convert it into nitrogen that plants can absorb and use. When the nitrogen-fixing plants died, their remains further fertilized Rochester soil.

Eventually, too, mycorrhiza-forming fungi spores arrived at the Rochester region. Mycorrhiza, or "fungus root," is a nutrient-absorbing network that certain plant roots and certain fungi together form. The fungus — located on or in the plant root — absorbs nutrients and transfers them to the plant, providing otherwise unavailable nutrients to the plant. The plant, in turn, furnishes the sugars it creates during photosynthesis to the fungus. Mycorrhiza are critical to the growth of all boreal forest trees. Not until mycorrhizal fungi arrived could Rochester's primary trees become established.

Ultimately, however, trees did become established. From different refugia at different starting points with different speeds, vegetation eventually took hold, becoming established even on top of stagnant ice blocks (St-Onge 1972a). Eventually, the boreal forest spanned the breadth of Canada, a vast mosaic of trembling aspen *(Populus tremuloides)*, balsam poplar *(Populus balsamifera)*, paper birch *(Betula papyrifera)*, white spruce *(Picea glauca)*, balsam fir *(Abies balsamea)*, jack pine *(Pinus banksiana)*, black spruce *(Picea mariana)*, and tamarack *(Larix laricina)*. The boreal forest did not migrate en masse, however (Ritchie 1989); rather, individual tree species arrived at different times from the south.

The Boreal Forest Develops

Why certain tree species colonized at certain times no one knows for sure. Seed size and mobility likely played an important role. In other words, those species with small wind-borne seeds likely arrived before those with larger less mobile seeds (Rowe 1992). Indeed, in the Rochester region this appears to be true of many tree species: aspen *(Populus* spp.*)*, birch *(Betula* spp.*)*, willow *(Salix* spp.*)* colonized deglaciated lands before spruce with its winged seeds, while spruce *(Picea* spp.*)* colonized a few thousand years before pines and firs. Alder *(Alnus* spp.*)*, however — a pioneer species with highly mobile seeds — arrived at the same time as spruce, while tamarack with winged seeds arrived after pine *(Pinus* spp.*)*.

Environmental conditions like climate, sunlight, soil development, and biological activity surely played an important role in plant colonization as well. Certain species needed certain environmental conditions to exist and to reproduce successfully. Jack pine, for instance, needed fire to germinate, and, consequently, its migration north may well have been triggered by increased fire activity (Vance 1986b). Black spruce needed organic soils to grow, soils that formed only after the watertable rose and organic matter accumulated.

Studies looking at past vegetation approximately seventy kilometres northeast (Lichti-Federovich 1970) and approximately thirty-five kilometres east of the Rochester region's mid-point (Lichti-Federovich 1972) suggest that a rapidly changing landscape existed. Specifically, immediately following deglaciation, aggressive pioneer species grew. An open canopy of aspen and poplar grew above willow *(Salix* spp.*)*, sagebrush *(Artemesia* spp.*)*, grasses, and sedges *(Carex* spp.*)*, forming a woodland that resembled no other, then or since. Then, white spruce *(Picea glauca)* arrived. Some 10,000 years ago, with white spruce dominating, a pioneer version of the modern boreal forest became established. Within the forest, aspen *(Populus tremuloides)* and poplar *(Populus balsamifera)*, sagebrush, grasses, and sedges grew. Next, some 9,000 years ago — amid apparently intensely arid conditions — white spruce all but vanished, and birch *(Betula papyrifera)* dominated the scene. Fifteen hundred years later, birch still dominated but now amid alder *(Alnus* spp.*)* and herbs rather than alder, aspen, and hazel. At this time, for the first time, jack pine became established. At about this time, too — roughly 7,500 years ago — grasslands crept north into the southern region of the boreal forest. While the incidence of birch and bog decreased, the incidence of grasses and reed marshes increased.

Not until 3,500 years ago did Rochester's familiar assemblage of plants exist. With cooler wetter weather, white spruce*(Picea glauca)*, jack pine *(Pinus banksiana)*,, and paper birch *(Betula papyrifera)* reappeared, grasses and non-woody plants retreated, and — heretofore absent — balsalm fir *(Abies balsamea)* and tamarack *(Larix laricina)*. moved in. What resulted was the landscape of today. It is a landscape graced with lakes, peatlands, and a seemingly endless patchwork of conifers and broad-leaved trees. It is the boreal forest, a transcontinental belt stretching from Alaska to Newfoundland and comprising eighty-two per cent (Rowe 1992) of Canada's forests. Once baked by the Sun, bathed by seas, and ground by kilometre-deep ice, the Rochester region now is covered by the fragile, complex, and vital boreal forest ecosystem.

Table 4.1: Geologic time and significant events in Earth's history, condensed into one year

modified from Monroe and Wicander 1992, 21

YEARS BEFORE PRESENT	EVENT	DATE AND TIME	
4,600 million	Earth formed	January 1	12:00 midnight
3,600 million	Oldest fossil	March 21	8:20:52 am
700 million	First metazoans	November 4	10:57:23 am
510 million	First fish	November 21	12:46:57 pm
430 million	First land plants	November 27	9:07:50 pm
360 million	First amphibians	December 3	10:26:02 am
242 million	First dinosaurs	December 12	7:08:52 pm
222 million	First mammals	December 14	9:14:05 am
145 million	First birds	December 20	11:52:10 am
115 million	First flowering plants	December 22	9:00:00 am
66 million	Dinosaurs become extinct	December 26	6:18:47 pm
53 million	First horses	December 27	7:04:10 pm
2 million	First humans	December 31	8:11:29 pm
1.6 million	Cool period begins	December 31	8:57:11 pm
10,000	Holocene interglacial begins	December 31	11:58:51 pm

5

THE PEOPLE COME

Their continent invaded and wrestled from their control by foreigners, they were the first transnational rip-offs.

E. Palmer Patterson II
The Canadian Indian: A History Since 1500

CANADA
THE MOST FERTILE COUNTRY IN THE WORLD
160 ACRES OF LAND, FREE

Canadian Government immigration poster
early-1900s

By the morning of the 27th of May our entire outfit, loaded upon waggons, went off on the northward trail leading to Athabasca Landing, a small trading-post situated one hundred miles distant on the banks of the great Athabasca River. . . . [W]hen half-way to the Landing, we reached the Height of Land between the two great valleys of the Saskatchewan and Athabasca rivers. Here, upon a grassy spot, we pitched our first camp. As the night was clear no tents were put up, but, after partaking some refreshment, each man rolled up in his blanket and lay down to sleep beneath the starry sky. We rested well, although our slumbers were somewhat broken by the fiendish yells of prairie wolves from the surrounding scrub, and the scarcely less diabolical screams of loons sporting on a pond close by. An effort was made to have the latter nuisance removed, but any one who has ever tried to shoot loons at night will better understand than I can describe the immensity of the undertaking. About nine o'clock on the evening of the 30th of May we arrived at Athabasca Landing, only a few hours after the loads of supplies, which we were glad to find had all come through safely.

J. S. Tyrrell
1897

Within the boreal forest, the Rochester region lies, linked inseparably to the rest of the planet. Within the Rochester region, members of the Rochester community live, linked inseparably to the boreal forest. They are part of and dependent upon this ecosystem they inhabit, their actions reverberating throughout the forest and impacting their own health and well-being. Indeed, as significant as the changes that are propelled by the Universe are the changes incited by humans. Humans have brought change of immeasurable proportion to the Rochester region.

But it was only when the Laurentide Ice Sheet receded that humans first walked on Rochester soil. For nearly all of Earth's history, no human traversed the Rochester landscape. For nearly all of human history, not a soul inhabited the Rochester countryside. Indeed, human habitation has been brief. More precisely, if Earth's history were compressed into one year, then human history on this planet would comprise three-and-three-quarters hours (Monroe and Wicander 1992) — and human habitation in the Rochester region would comprise roughly one minute. It was, most scientists speculate, just 10,000 to 10,500 years ago (Ives 1996) that human beings first set foot on the area we now know as Rochester. By comparison, at the same time in some other corners of the planet, human beings were inventing agriculture.

It is the purpose of Chapter 5 to describe that habitation of the Rochester region. In the pages that follow, I present a chronological review of human habitation, starting with the first people who came to the region — who many thousands of generations later we know as Native Americans. The chapter moves from the arrival and adaptation of those early residents to the arrival of European fur traders to the arrival of eastern Canadian, American, British, and European settlers. It was those early settlers who established the Rochester community. Accordingly, in Chapter 5, I describe their settling of the region, outlining their efforts to make the land and community their home. Not intended as a definitive investigation of the settlement process, however, this chapter is an overview of events leading to the Rochester community today.

The First People Arrive

Humans first entered the Rochester region when the ice sheet retreated. From Asia, humans came to North America. Having evolved on the tropical savannas of southern and eastern Africa some 2 million years ago, humans began drifting northward and eastward some 1.5 million years ago (Fiedel 1992). They drifted into the cold dry tundra of northern Asia and — in time — they drifted into Beringia.

Beringia Lies Exposed

Beringia was the land mass between Asia and North America that existed during glaciation. It formed with the onset of the Wisconsin glaciation some 75,000 years ago, and existed periodically — whenever it was especially cold — until 15,000 years ago. It formed when the glaciers locked up Earth's limited water supply, causing sea levels to fall and shallow shorelines to surface. Specifically, the 70,000 cubic kilometres of continental ice (Press and Siever 1986) locked up water that otherwise would have filled the rivers that replenished the oceans; as a result, sea levels plummeted 130 metres below those of today (Bloom 1983). And the Bering Strait floor and most of the continental shelves lay exposed.

It was "Beringia" that lay exposed. Beringia included the ice-free parts of Alaska, the Yukon, and Siberia's northeast peninsula as well as the exposed Bering Strait floor. When the ice sheets began to melt, causing water to return to Earth's system, sea levels to rise, and the Bering Sea to form, Beringia disappeared. Under nearly 40 metres of sea, the land bridge lay submerged, with Asia and North America once more separated by ninety kilometres of water.

Although Beringia was mostly ice-free, a cold harsh climate greeted humans. Nonetheless, there was a rich diversity of plants and animals, many species that later colonized North America. Upon the tundra-covered plain, for example, large herds of mammoths *(Mammuthus* spp.*)*, bison *(Bison* spp.*)*, and horses *(Equus* spp.*)* grazed. Upon these and other animals, a hardy people depended, hunters and gatherers that eventually drifted into North America in pursuit of food.

The First People Migrate

How precisely these people came to North America is uncertain. Very probably they walked across Beringia. And very possibly they paddled boats along the Beringia shoreline and, then, perhaps south along the North American coast (see Fiedel 1992). Once Beringia lay submerged, however, they might still have navigated the Bering Strait, walking across the frozen water in winter or paddling boats across open water in warmer weather (Fiedel 1992) just as the Innu have done historically.

When precisely humans first came to North America is another uncertainty. Some researchers believe that they arrived as long ago as 100,000 to possibly 1,000,000 years ago, drifting south from Beringia into Central and South America. Most researchers contend, however, that the first people came later. Humans, they say, could easily have entered North America between 75,000 and 15,000 years ago, whenever Beringia existed. Wrote Ives, Beaudoin, and Magne (In Press 23):

> It is conceivable...that the eastern periphery of Beringia (i.e. Alaska and the Yukon) first began receiving human populations 40,000-45,000 years ago. This is not to say the region was continuously occupied, particularly as the late glacial maximum was approached. Situated on the northeastern periphery of the human range, there might well have been episodic entries from northeast Asia of the Bering Platform, not all of which were demographically successful.

By some 20,000 years ago, humans occupied the far northwestern portion of North America; artifacts from Bluefish Cave document human occupation from 12,000 to more than 20,000 years ago (Ives, Beaudoin, and Magne In Press). From the Yukon, these people gradually moved south into warmer climates. Their routes of travel were limited, however, obstructed by continental ice sheets. They might have travelled south along the Pacific coast, where marine resources were abundant; the Queen Charlotte Islands off the British Columbia coast, it appears, were ice-free beginning some 15,000 to 13,000 years ago (Ives 1996). And they likely travelled through an ice-free corridor along the Rocky Mountains' eastern slopes.

An Ice-Free Corridor Allows Passage

Between the Cordilleran Ice Sheet in the west and the Laurentide Ice Sheet in the east, an ice-free corridor existed — before, after, and maybe even during the height of each glaciation. When the ice sheets advanced and before they merged, the corridor formed; and when the ice sheets first retreated, the corridor formed once more. Connecting the ice-free portion of the Yukon with the ice-free portion of the United State, it provided plants and animals of the refugia a route of travel. It, therefore, allowed plant and animal migration from south to north and from north to south and, in the process, the establishment of plants and animals in the corridor.

The most recent ice-free corridor formed some 24,000 years ago (Schweger 1989) as the climate cooled and the ice sheets advanced. Throughout most of its existence, this corridor was a cold and arid place. Amid a sparse covering of tundra vegetation (Schweger 1989), small mammals like lemmings*(Dicrostonyx* spp., *Lemmus* spp.*)* and ground squirrels *(Spermophilus* spp.*)* and large mammals like mammoths *(Mammuthus* spp.*)*, bison *(Bison* spp.*)*, horses *(Equus* spp.*)*, and camels *(Camelops* spp.*)* existed. Apparently, however, they vanished during the height of glaciation — between 21,000 and 14,000 or 15,000 years ago — when conditions were severe and returned as the ice sheets retreated (Ives, Beaudoin, and Magne In Press).

After the ice sheets began their retreat, the ice-free corridor again became penetrable and habitable. Ice blocks stagnated (Schweger 1989). And enormous lakes pooled at the base of the receding ice — biologically productive lakes that humans could cross when ice formed in winter (Ives, Beaudoin, and Magne In Press). Between some 11,500 to 10,500 years ago (Schweger 1989), a pioneering forest of birch *(Betula papyrifera)*, poplar *(Populus balsamifera)*, and aspen *(Populus tremuloides)* developed. Shortly after, a modern boreal forest became established in the area (Schweger 1989), within which such modern boreal animals as the snowshoe hare *(Lepus americanus)* and many water birds existed (Ives, Beaudoin, and Magne In Press).

It was through the corridor that humans and their ideas likely funneled, initially moving south and later moving north. According to Ives, Beaudoin, and Magne (In Press), people probably passed through it during three different time-periods:

- before the height of glaciation through 20,000 years ago;
- from after 14,000 to just before 11,500 years ago — when they might have first penetrated ice-free United States
- after 11,500 years ago — when residents in the north could travel south and residents in the south could travel north.

Humans Come to the Rochester Region

Indeed, it appears, the corridor was important to the peopling of the Americas. Roaming through the corridor, humans colonized lands they never before had occupied. As the Laurentide Ice Sheet retreated northeast, they followed close behind it, moving northeast into the desolate landscape the glacier left behind. And so it was they moved into the Rochester region. According to Ives (1996), people inhabiting the ice-free corridor moved west into Rochester as the corridor widened, and people inhabiting ice-free areas south of Rochester in what now is the United States moved north into what now is central Alberta, making the Rochester region among the first to be inhabited (Ives 1996). Perhaps the first people migrated north through the Tawatinaw Valley, suggested Ives (personal communication). For it is thought that the Tawatinaw Valley carried meltwater south into the Saskatchewan River and provided a migration route for plants, animals, and human beings.

Artifacts reveal that by 10,000 to 10,500 years ago humans occupied the Rochester region (Ives 1996). Site-inventory records from the Archeological Survey of

Alberta brings these early people to life. In what today is a farmfield overlooking the Tawatinaw River, for example, an "oxbow" projectile point was unearthed — a spearhead manufactured as far back as 5,000 years ago. In another farmfield just north of the Rochester region — on a low hill with a good view — a projectile point some 6,000-years-old surfaced. And on a ridge southeast of Armstrong Lake, rock flakes and burned bone of a prehistoric campsite were located along with bottle-glass fragments of a more recent occupancy; indeed, campsites near water and with a view were valued and recycled through time (Ives 1993). From these artifacts and others, it is evident that humans have occupied the Rochester region for many thousands of years.

Early Residents Adapt

Into a steadily changing environment the first people had drifted. In the Rochester region, the especially arid climate that existed during the ice sheet's retreat gave way to cooler moister conditions some 6,000 years ago. Current precipitation levels arrived some 4,000 years ago, and current temperatures arrived some 1,000 years ago. With the changing climate came a changing landscape. The various pioneering woodlands gave way to grasslands some 7,500 years ago, which gave way to the modern boreal forest some 3,500 years ago.

Little is known about the first people of the Rochester region, said archaeologist John Ives in a personal interview (2 November 1995). Fragments of stone, clay, or bone; legends passed through generations; and speech and language patterns of descendants suggest they were an adaptable and hardy people. Hunters and gatherers, they led an arduous life amid what Tawatinaw Valley sand dunes indicate must have been widespread drought, soil erosion, and soil drifting.

A Culture Develops

With time and a changing climate, these early people became tied inextricably to the mixedwood boreal forest. They ate boreal animals — generally solitary and dispersed species, some of whose populations cycle or fluctuate. And they ate boreal plants as well — plants that grew too few in species and number to sustain them during food shortages. As a result, Ives (1993) wrote, the early people themselves lived dispersed in small mobile bands, and they had far-reaching family ties. In fact, he added, they developed the perfect and maybe only response for survival: by covering vast areas in numbers few and far between that these early people could survive where prey was hard to find and food shortages were a fact of life. As well, he wrote, by maintaining an extensive social network — particularly a family network — the early people could ensure movement from regions of food scarcity to abundance.

Over hundreds of generations, the early people developed a culture. Culture, explained Tylor (1958), "....is that complex whole which includes knowledge, belief, art, morals, customs, and any and all other capabilities and habits acquired by man as a member of society." These people developed a rich culture that helped them to survive. They manufactured birch-bark canoes to navigate muskeg and creeks, for example, and snowshoes, toboggans, and dog sleds to trek over soft snow. They trapped animals and cured animal pelts. Living entirely off of the land, they utilized every available and useful part of the mixedwood boreal forest for shelter, clothing, and food.

In the Rochester region specifically, the early people depended primarily upon moose *(Alces alces)*. Eating moose flesh, they also made tools from bones and antlers; clothes, blankets, showshoes, and tents from hide; padding from guard hairs; sewing-thread from back sinew; embroidery thread from long bristly mane; and rattles from hooves (Seton 1909). They ate snowshoe hares *(Lepus americanus)* too, in autumn noting embryo number to ascertain winter's food potential (Preble 1908). When hares were lean and populations low, they turned to beaver *(Castor canadensis)* and fish (Ives 1995; Morton 1973). What's more, they captured ducks during molt, and ate birds eggs, plant roots, mushrooms, and rose hips as well. And they dried and stored berries and nuts, tapped birch sap, chewed spruce gum, and drank Labrador and kinikinik teas.

Having no metal, these people used stone as well as plant and animal parts for weapons and tools (Dempsey 1967). Men manufactured weapons, hunted large animals, and performed religious rituals. Women gathered food, cooked, skinned and tanned hides, sewed, and embroidered. Like other cultures world-wide, they married, had children, and raised families. They possessed few material possessions; acknowledged and traded with neighbouring bands (their kinship network); and warred in moderation. They developed "unique artistic and decorative skills, sophisticated myths and legends to explain their world to themselves and others, and religious beliefs that sustained the human qualities needed for survival (Morton 1994)." Considering themselves part of not masters of nature, they respected the living and nonliving world that sustained them.

By the time Europeans "discovered" North America some five centuries ago, the continent's native culture flourished. Thousands of bands existed throughout what today is Canada, members of diverse groups that spoke variants of one of three languages. These languages were Algonquin, Siouan, and Athapaskan (Athabasca Historical Society 1986). The Cree, Blackfoot, and Ojibwa, for example, spoke variants of Algonquin; the Assiniboine spoke a variant of Siouan; and the Chipewyan, Beaver, Slavey, and other Dene spoke variants of Athapaskan. Each of these native groups had its own knowledge, technology, arts, values, and religion. Every aspect of its heritage and traditions embraced and reflected the people's experiences, passed on through generations. Expressive and descriptive, the language of the Cree, for example, contained not one but many words for snow. There was *piwon* meaning drifting snow, *papestin* meaning drifted snow, *sasken* meaning melting snow, and *kona* meaning snow in general (Dion 1979).

Native Groups Occupy the Region

Just which native groups inhabited the Rochester region before Europeans invaded is hard to say. The Athabasca Historical Society (1986) reported that while many groups occupied the area, no single group reigned. The Blackfoot of the Saskatchewan River valley, the Beaver of the Peace River and Cold Lake-Lac La Biche regions, and the Chipewyan from north and south of Lake Athabasca all likely traversed the region. They all likely hunted, fished, and camped in the Tawatinaw Valley, and perhaps they travelled through it to trade goods. Indeed, the word Tawatinaw itself — "Tautinau" according to one turn-of-the-century writer (Cameron 1986, 22) — is a Native American word for "river that divides the hills" or "valley river (Holmgren and Holmgren 1976)." It was at the central portion of the Athabasca River valley the different native groups likely met, wrote the Athabasca Historical Society (1986 6):

> The middle Athabasca River valley was thus a meeting ground for different native cultures, a buffer zone between itinerant tribal groups that often tolerated and traded with each other, but that occasionally fought for control over the countryside and its fauna.

In response to food supply and seasons, the native people travelled, traversing the Rochester region. Specifically, they hunted moose and fur-bearing animals in the boreal forest; they fished, hunted, and gathered plants, nuts, and berries in the parkland; and they hunted and traded for bison and dried meat called pemmican south and east in the grasslands (Athabasca Historical Society 1986). They lit wildfires — accidentally and intentionally (Rowe and Scotter 1973) — and returned later to hunt and harvest plants. Travelling wherever and whenever they liked and staying however long they wanted, the native people roamed hundreds of miles each year.

At least once each year, they congregated — the people of a particular region uniting where camping was good and food was plentiful in their territory. Gathering in groups of two hundred to four hundred people (Meyer, Gibson, and Russell 1992), they congregated along the banks of both the Athabasca and Saskatchewan Rivers, for example. There, they celebrated major religious ceremonies and the events of nature, feasting, dancing and singing, and playing games. And, too, they arranged marriages, settled disputes, and traded[1] (Meyer, Gibson, and Russell 1992).

As foragers with limited technology, these early people did little damage to the flora and fauna of the boreal forest. Here in the mixedwood boreal forest where animals lived dispersed and populations fluctuated, they survived. Here, where winter dominated, snow fell deep, water abounded, wildfires burned, and insects swarmed, they endured and their culture flourished.

The Native Culture Is Ravaged

When Europeans alit on North American soil, the end of the Native American culture drew near. It was in 1497 that John Cabot landed on "New Founde Lande," claiming the continent for the British throne. It was in 1534 that Jacques Cartier landed on the Gaspé shore, claiming the continent for His Most Christian Majesty, Francis I of France. Thus began a struggle between England and France for rule over Canada. But, as historian Desmond Morton (1994) noted, the bids of England and France both ignored the claims of Vikings who, five hundred years earlier, sailed from Iceland to the coast of Labrador, Newfoundland and possibly New England, recording their findings in Norse sagas. They ignored the regular visits of the Basque and Breton fishers who sailed home laden with fish, mum about its origin. And, most importantly, they ignored the claims of the indigenous people who had inhabited North America for hundreds of generations.

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[1] Native people traded extensively with members of their own band, other bands within their culture, and bands outside their culture. More than an economic event, trading was a gift-exchange ceremony and a time for celebration (Friesen 1987).

The Fur Trade Desecrates Native People

What the English and French bids for sovereignty did do, however, was mark the beginning of the desecration of rich native-cultures. Europeans usurped Native American land and destroyed Native American heritage and rights. First, when they needed native knowledge, food, transport, and furs to survive and prosper, Europeans used and exploited the native people. Morton wrote (1994 23):

> Without the full cooperation and assistance of natives in showing the Europeans their methods of survival, their territory, and their resources, the early explorers and settlers would have perished in even greater numbers and possibly abandoned their quest, much as the Vikings had done five hundred years before.

Then, as they prospered, Europeans pushed aside the native people who no longer were relevant to their goals. They dumped them onto reserves, stripped them of their rights, suppressed their language, scorned their culture, and seized control of their destiny. Finally, with native people banished, Europeans deemed *themselves* native and Native Americans an ethnic group (Patterson 1972).

It was a travesty incomprehensible to native people. Initially, they saw the French and English as bearing prosperity. Trading European technologies for native furs, the French and English provided the native people guns and ammunition, metal flints, hatchets, metal chisels, files, awls, needles, knives, kettles, food, and cloth shirts and blankets. They made life easier while they left the people's nomadic lifestyle and customs untouched. In time, however, French and English technologies and attitudes brought suffering as well. Growing dependent upon trading goods and reliant upon trading posts, the native people began to neglect their traditional subsistence living. They trapped more and hunted less. They grew increasingly reliant upon European technology and increasingly dependent upon the European economy.

Meanwhile, fur traders poured liquor unmercifully at negotiations, skewing the native people's judgment and cheating them of their fortune. "Fire water" ravaged bodies and minds. And European diseases like small pox, measles, typhus, influenza, and tuberculosis swept through populations and killed off whole families. Bewildered and demoralized, the native people began doubting their leaders' abilities and their own beliefs and practices, leaning, instead, on European medicine and practices. Bit by bit, piece by piece, European culture invaded the rich culture of North America's first people.

Native People of the East Displaced Native People of the West

To add insult to injury, native people soon lost their homelands. More specifically, they lost them first to other native peoples and later to white settlers. When the fur trade wiped out animal populations in eastern North America, they lost them to other native peoples. As European fur traders looked westward for furs, native people migrated westward for furs and food. The Cree, in particular, expanded their territory, armed with the guns they had acquired from fur traders. They displaced other native groups who, in turn, displaced other native groups — and a westward movement began that forever rearranged the native peoples' patterns of occupation.

In the central portion of the Athabasca River valley where Rochester lies today, although native people disliked the encroachment, few resisted the invasion of their sparsely populated homeland (MacGregor 1972). According to the Athabasca Historical Society (1986), the Blackfoot in the southern Alberta and the Chipewyan in the North did violently resist, however. Nevertheless, by 1800, the Cree had driven the Blackfoot southwest to the Bow River in southern Alberta, the Chipewyan north to the shores of Lake Athabasca, and the Beaver west beyond Lac la Biche. As a result, the Blackfoot and Chipewyan no longer wandered the Rochester region; instead, only the Beaver remained. By 1820, the Cree apparently had joined the Beaver in the region. And by the mid-1850s, wrote the Athabasca Historical Society (1986), the Cree alone inhabited the area, having driven the Beaver west to Lesser Slave Lake.

Treaties Displace Native People

With their lands lost to other native people, the native peoples then lost their lands to white settlers. They signed them away in treaties, exchanging what white men called "idle lands" for medical supplies, pensions, food, and reserves. Treaty #6 of 1876 encompassed the Rochester region. Specifically, it transferred nearly 203,000 kilometres (MacGregor 1972) of Woodland-Cree-land to the Canadian Government, an expanse that stretched west from the Manitoba border through the Athabasca Landing to the Rocky Mountains and southeast to Swift Current, Saskatchewan.

Treaty #6 excluded land north of Athabasca Landing. It was to this land that the Cree in the Rochester region retreated. They fled white settlers and wildfires in the 1880s, noted the Athabasca Historical Society (1986). Behind them, they left the graves of their dead. Decades later at a Tawatinaw Valley sand pit north of Rochester, it was reported that "bones tumbled down and were shipped to Edmonton.... occasionally a red Hudson's Bay blanket would be seen as the sand was sliding down the bank. The men loading at the pit seemed to take this in their stride and never bothered about it. If any of the graves remained intact there is no sign of them today (Speers 1986)." In death as in life, the native people were plundered.

The signing of the treaties brought even greater change to the native people. Determined to make peasants out of the nomadic hunters, the Canadian government demanded that these banished people abandon their language, ways, traditions, and beliefs. It demanded that they live settled lives on the marginal land they now "owned" — a concept inconceivable to people at one with nature's freedom and flow. Ultimately, though, through "economic, military, and political means (Patterson 1972)," the Canadian government fulfilled its agenda. Ultimately, it ravaged the lifestyle, customs, and self-esteem of the native people.

Missionaries Convert Native People

Missionaries as well as the Canadian government assailed the native culture. Considering a settled existence fundamental to both Christianity and "civilization" (Palmer 1990), missionaries set out to convert the native people to either Christian farmers or community members. Interestingly, fur traders initially opposed their arrival, resenting missionary interference with profitable trade.

First arriving in Alberta in the 1840s, missionaries arrived at present-day Lac La Biche in 1844 (Maccagno 1986) and near the Rochester region in the 1870s. More precisely, the Anglicans arrived at present-day Athabasca in 1873. The Roman Catholics and Methodists appeared soon after. According to the Athabasca Historical Society (1986), in 1888, Anglican missionaries decried the disease and starvation consuming the native people of the North; in 1891, Roman Catholic missionaries constructed a building at Athabasca Landing to help serve those people; and, in the mid-1890s, the Anglicans completed their first Anglican church and mission house. All were eager to sow the seeds of Christianity among native and half-native — or "Métis" — people.

So it happened: the first people to come to the Rochester region were ripped from it. Over thousands of generations, they had adapted to the land and had become rooted in the mixedwood boreal forest. But, then, when Europeans sought their fortune, the first people were invaded, exploited, and, then, pushed aside. The life that they knew and the rich culture they developed was changed forever. It was yet more change in the unfolding drama of the Rochester region.

The Government Looks West

In the 1870s, the Canadian government turned its sights westward. The fur trade had shown that the West could be exploited profitably, given "a marketable export staple, cheap transportation, and effective large-scale organization with adequate capital (Card 1960, 5)." So when the economy floundered during an international depression, Ottawa turned to the land of the fur trade. Prosperity lay in Canadian territories, it contended. A populated west would create commercial and industrial prosperity of the kind that Canada enjoyed during agricultural expansion and that the United States currently experienced; prairie products would feed eastern markets and bring business to the railways; prairie farmers would ship western grain and livestock east and buy eastern lumber, groceries, and machinery and ship them west, the government maintained. In accord, the government asserted, the economy would flourish again while Canadian presence would safeguard the West from American expansion.

With this line of thinking, the Canadian government created "The Last Great Agricultural Frontier." It established a national policy that embraced the following: Indian treaties to recognize and extinguish aboriginal land rights; Northwest Mounted Police to instill law and order; land surveys, land sales, railway construction, and immigration to bring farmers west;,and tariffs to protect eastern manufacturers. Then, to quickly and efficiently colonize the prairies, it established a homestead plan like that of the United States. For a ten-dollar fee, the Canadian government issued immigrants 160 acres of land and — once "homesteaders" completed the "improvements" required — it issued them a land title, free and clear.

Regardless of government incentives, however, few people came to Canada. Between 1867 and 1899, just 1.5 million people immigrated — few compared to the 2.5 million that had entered Australia in the 1880s and the 5.5 million that had gone to the United States in the 1890s (Friesen 1987, 185). As a result, the Canadian government initiated an immigration campaign. Circulating propaganda worldwide, it advertised "160 acres of free land" and "the most fertile land in the world." Looking for industrious and self-sufficient people (Palmer 1990), it pursued farmers and peasants, seeking Canadians, British, and Americans first, North Europeans — Scandinavians, Germans, and Dutch — second, and East Europeans last (Card 1960).

Furthermore, it subsidized a transcontinental railway. A railway, it contended, would open the economic hinterland, colonizing the prairies, increasing communication, linking Britain to the Far East, and blocking American expansion (Palmer 1990). In 1881, railway construction began.

It was in 1883 that the Canadian Pacific Railway reached Calgary, bringing homesteaders west. To Edmonton via a cart-trail — the Calgary Trail — many of them travelled. In 1885, the railway reached Edmonton, linking Edmonton to Calgary, and bringing homesteaders north. At first, they only trickled through the Rochester region. Then — enticed by the immigration campaign — they started streaming to Edmonton and beyond to the Peace River region.

The Athabasca Landing Trail Leads North

Over the Athabasca Landing Trail and through the Rochester region all north-bound newcomers initially travelled. Homesteaders, gold miners, trappers, labourers, businessmen, writers, and adventurers all followed the Trail. They followed the independent fur-traders who followed the missionaries who followed the Hudson's Bay Company explorers and traders.

At first, they travelled a rutted and stump-laden Landing Trail. A pack trail hacked into the forest, the Athabasca Landing Trail was braved by Hudson's Bay Company employees and just some adventurers. With the arrival of steamships and railway, however, the Hudson's Bay Company "improved" the trail in the 1880s, widening it, pulling stumps, picking rocks, laying corduroy — poles blanketed with dirt over muskeg — and building ferries and bridges. And it burned encroaching brush, setting off forest fires in the process (Athabasca Historical Society 1986). These fires burned the countryside south of Athabasca Landing and, consequently, opened the area for later settlement.

From pack trail to cart-trail, the Landing Trail thus evolved. It was a primitive cart-trail, however, travelled most easily and more often in winter when stumps, rocks, and ruts were covered by snow and when lakes and muskeg were frozen. But with constant Hudson's Bay Company maintenance, conditions improved. Wrote Warburton Pike (1967) about his Landing Trail journey in mid-June 1889:

> A fair road some hundred miles in length has been made by the Hudson's Bay Company through a rolling sandy country, crossing several large

> streams and passing through a good deal of thick pine timber where some heavy chopping must have been necessary. The flies bothered us greatly; the large bulldogs, looking like a cross between a bee and a blue-bottle, drove the horses almost to madness, and after our midday halt it was no easy matter to put the harness on; fortunately we had netting, or the poor beasts would have fared much worse: as it was the blood was streaming from their flanks during the heat of the day. The mosquitoes appeared towards evening, but as the nights were usually chilly they only annoyed us for a few hours. There were no houses along the road, but plenty of firewood and feed for the horses; we had a good camp every night, sleeping in the open air, starting very early and resting long in the middle of the day.

The improved Trail drew travellers. And additional travellers meant additional wear, tear, and abuse of Hudson's Bay property, numerous traveller complaints, and much Hudson's Bay Company concern. Despite the money and manpower the company poured into maintenance of this private road, the Landing Trail was treacherous. Settlers' wagons mangled it, and occasional fires and periodic spring floods damaged it. In rainy weather, it was nearly impassable (Athabasca Historical Society 1986). But when the Hudson's Bay Company attempted to upgrade it, the new North-West Territorial government called for a *government* upgrade and survey, proclaiming — in 1898 — the Athabasca Landing Trail to be government property and deeming it to be a public road not a private trail.

Klondikers Travel the Landing Trail

It was during the previous year that gold fever hit — and that prospectors poured through the Rochester region. Worldwide, newspapers broadcast an extraordinary gold strike in the Yukon's Klondike Creek. To this, men swarmed, 785 of them trudging over the Athabasca Landing Trail (Athabasca Historical Society 1986). For, indeed, one route to the Yukon was through the Athabasca Landing and over 4,000 kilometres of river (MacGregor 1972). Most prospectors left Edmonton in late-fall 1897. Overwintering in tents at Athabasca Landing, they floated down the Athabasca River in spring. Five hundred of them reached Dawson, 35 died from scurvy or drowning, and 250 turned back (Athabasca Historical Society 1986).

The Klondike gold-miners were among the first newcomers to traverse the Rochester region. Before them came the Northwest Mounted Police, dispatched to bring law and order to Athabasca country — that is, to stop the rash of forest fires, the rampant dealing of liqour to native people, and the white trappers' poisoning of animals (Athabasca Historical Society 1986). After the prospectors, came the homesteaders and tourists. Eager to reach the North glamourized by the gold rush, tourists crossed the Rochester region. Over the Landing Trail to the Athabasca Landing, they traipsed, riding steamships down the Athabasca River to the Mackenzie River and into the Arctic. Meanwhile, from the Athabasca Landing, homesteaders rode boats downstream to the fertile Peace River region.

Homesteaders Travel the Landing Trail

Indeed, it was to the Peace region that homesteaders now swarmed. In 1899, the Canadian government had claimed the region its own. Having convinced disgruntled native people to sign Treaty #8, it had extinguished aboriginal land rights north of Athabasca Landing (Athabasca Historical Society 1986). In this way, it had eliminated legal obstacles that blocked northward expansion. That accomplished, it encouraged settlement, economic development, and mineral extraction.

So it was that European civilization stormed northward. Telegraph lines were erected along the Landing Trail in 1904, helping to break frontier isolation. And stopping places sprung up, providing travellers and their animals respite from the cold, rain, and mosquitoes, and furnishing a livelihood to enterprising souls. Remembered Marion Ward of Rochester (1986a, 28):

> All we charged for a meal was thirty-five cents. They had soup, if they wished, they had meat and potatoes and a vegetable, and there was pie or pudding — whichever they liked, and tea or coffee (mostly tea). We charged a dollar if they stayed overnight. That was for supper, bed and breakfast. We also charged a dollar a night for the horses if they had hay and oats.

In 1887, south of Rochester, Johny Gullion built the first stopping place. Soon, other people followed suit. In the Tawatinaw Valley, major and minor stopping places were established. In the late-1800s, freight companies were established, carrying freight at $15.00 per ton or 75 cents per hundredweight (Rye 1962). They travelled in seasons and weather, horse-drawn carts, wagons, and sleighs reaching Athabasca Landing in five days with "a ton or more load" when conditions were good (Hanlan 1986b, 17). Even faster was the $8.00 stage coach — a sleigh or open wagon called a "democrat" pulled by horses. It took the stage coach less than three days to travel between Edmonton and Athabasca, stopping at major stopping places for fresh horses, hot meals, and a night's rest. Established in 1898, the stage ran 62 horses and 6 democrats by 1905 (Athabasca Historical Society 1986).

In addition, there were horse-drawn wagons, oxen-pulled carts, and dog sleds all carrying newcomers north. There were people on foot, horse, and even on cow (Ward 1986c). Along the Sturgeon River, north between Bouchard and Jalicoeur Lakes, over the height of land separating the Saskatchewan and Athabasca Rivers, and along the Tawatinaw River to the Athabasca Landing, they trudged. Sometimes they travelled through the Tawatinaw River Valley; usually they travelled above it to the east. It was up hills and down hills, around sloughs, over muskegs, through creeks, across sand hills, over stumps, and around trees. Avoiding bogs and mud holes whenever possible, they followed the easiest not the shortest route. Nonetheless, they regularly got stuck in muck, forged new paths, and cursed the condition of the trail. Sometimes they died — and where they died, they often were buried.

The journey from Edmonton to the Athabasca Landing took days. For example, according to one homesteader, it took five days with horses and more than one week by oxen (Shopland 1986). And sometimes it took longer to travel the 160 kilometres. Remembered another early settler (Ward 1986b, 28), "You couldn't go....more than fifteen or twenty miles a day with the sheep and the cattle and everything."

Homesteading Has a Cost

Some of the newcomers stopped to homestead the Athabasca Landing. Ten dollars bought a land claim[2]. Hard work bought a land title free and clear. "Cheap land and a lot of hard work to it!" mused one pioneer during an interview. For it was only after a homesteader built a $300 house, lived on the homestead or with nearby relatives for six months of each of three years, and cleared and cultivated at least fifty acres, they received their land title. Settlers arriving after 1914 faced somewhat less rigourous requirements: a quarter-section could be theirs after they lived on it in a "habitable" home for any 18 months of the three-year period.

Which quarter-sections homesteaders around Athabasca Landing chose depended primarily upon ease of clearing and secondarily upon proximity to wagon trails and proximity to railway stations (Stone 1970). Land covered by small trees, brush, and grasses was easiest to clear and farm, and, therefore, was chosen first and "proved up" most often. Land covered by medium and large trees was the hardest to homestead, and, consequently, the least favoured land to homestead. Burned or windfall-laden land and peatland fell in-between respectively. Of little significance to the settlers' choice of northern homesteads was soil type, noted Stone (1970) — although settlers tended to choose black soils or "chernozems" and "luvisols" over sandy, clayey, and organic soils.

But marginal farmland was marginal farmland — and both the Athabasca area and the Rochester region contained marginal farmland. Only a portion of most quarter-sections could be cultivated. According to government calculations, 48 per cent of the land surrounding Athabasca as having "poor" cultivation potential, 40 per cent "fair," 14 percent "good," and one per cent "excellent (Stone 1970, 11)." With odds poor for success, many homesteaders eventually abandoned their claims, usually citing "poor land" as their reason (Stone 1970). Rochester homesteaders, were no exception, many of whom abandoned their claims in fewer than two years (Speers 1986, 200). Those that remained often lacked money to move away: "Couldn't leave town without money. We were stuck here, you see?" a Rochester pioneer pointed out.

The Rochester Region is Settled

It was the Athabasca Landing that was settled first — and the Rochester region that was settled later, after the Athabasca area was filled (Stone 1970). According to one aged life-time resident, the prevalent view was that Rochester land was too wet to farm. Exactly when the first homesteader did settle at Rochester is difficult to say. Different stories circulate: For example, there is tale of the Allen brothers — Boer war veterans with script — who arrived in the early-1900s and, later, sold out; there is report of Bill Shopland who arrived in 1910 (Speers 1986); and, too, there is report by Rochester School students and homesteaders alike (Rochester School 1955) of Fred Sutton who arrived in late-April 1910, filing claim on N.W. 2-62-24 west of the fourth, and Bill Shopland who came May 3, 1910. No new settlers arrived until Spring 1911, that report stated.

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[2] The land had been surveyed into a grid composed of townships, sections, and quarter sections. Each township measured 36 square miles (93.24 square kilometres), and included 36 sections. Each section encompassed 1 square mile (2.59 square kilometres), and included 4 quarter-sections. And each quarter section measured one-half-mile-square or 160 acres (64.75 hectares). It was the quarter section to which settlers flocked to homestead.

Regardless of who came first, however, homesteaders did filter into the Rochester region. The years of 1914 through 1916, in particular, brought numerous new arrivals (Speers 1986, 200), many who travelled on the Canadian Northern Railway spur built in 1912. So many homesteaders travelled north, in fact, that on June 1, 1913 the railway initiated daily rather than tri-weekly service to Athabasca Landing (Athabasca Historical Society 1986). By 1916, it is reported (Speers 1986, 200), homesteaders had claimed most available land. By 1917, "many people" were said to inhabit the area (Rochester School 1955).

Some settlers had been greeted by "land locators" who met parties to show them available land (Betts and Betts 1986; Hanlan 1986a). Explained an resident born in Rochester's train station:

> Land locators met the trains that came into Edmonton. They worked for a certain community as a rule, getting people established in a homestead, finding a homestead for them. That's how my dad came here. Bill Overland: he was one of the main ones in the area at that time. And there were a lot of people that were brought in by him. My dad paid him a certain amount for bringing him out. He would have the list of the numbers of the quarters and would take the people out, right then, to check [them] out.

If the settling of the Athabasca area is any indication, most of Rochester's homesteaders were Americans. Canadians composed the second largest ethnic group, the British the third largest, and Europeans the fourth or smallest ethnic group to settle the Athabasca area, wrote Stone (1970). Most homesteaders were men, added Stone — young and single men, averaging 34 years of age but ranging from 18 to 62. When *families* settled, the average family size was four at the time of the land claim (Stone 1970).

Why did they come? According to Zimmerman and Moneo's (1971) study of Canadian prairie communities (including Rochester), numerous reasons existed. Some persons immigrated to escape disagreeable conditions or prospects in their homeland. Some persons immigrated to seek adventure. Some persons immigrated to obtain land and wealth. And some persons immigrated to enjoy early retirement.

Pioneers Make a Home

No towns greeted the first homesteaders. No doctors cared for their sick. No shoemakers sewed boots; no telephones relieved isolation; no roads led to neighbours' homes. There was nothing and nearly no one to provide for the first settler's needs.

There were just the families who operated stopping places. There was, for example, the Alec McDonald family at Two Creeks some four kilometres southeast of Rochester today. Since 1908 or 1909, they had operated the MacDonald Stopping Place, formerly the tiny Two Creeks Stopping Place (Hanlan 1986b). There was the Thomas and Elizabeth Lewis family at Spring Creek near Perryvale. Since 1907, they had operated the Lewis Stopping Place, formerly the Spring Creek Stopping Place for freighters (The house and family are still there.). There was the William and Martha Whiteley family Place at Sandy Creek where Perryvale stands today; since 1900, they had operated the Whitely Stopping Place. And there was the Stony Creek Stopping Place, near present-day Tawatinaw.

This was all that there was of European civilization in what today is the Rochester community. Mr. Justik reportedly built a blacksmith shop (Gerlach 1986). And Tom O'Connor built a general store just a few kilometres south on the valley's western slope. But, in short, it was the vast mixedwood boreal forest that greeted immigrants. Behind them lay their "civilized" world; before them and enveloping them lay seemingly endless "bush." The 160-acre plot they'd claimed now was their sustenance. With a cultural tradition of plows, livestock, roads, and money, they would not adapt to the land as the native people had done but, instead, would adapt the land to suit their wants and needs. With the industrial ideology intact, nature was their adversary (see Kehoe 1992). The land, they believed, was to be conquered and controlled; the 160 acres was theirs to be "broke."

But first they required shelter, turning to tents, covered wagons, sod huts, and shacks. And, then, they required farmland, chopping trees with an ax and digging roots with a grub hoe. Those who were lucky cleared one to three acres of bush in a year or ten acres of gumbo and relatively no bush, reported one pioneer in an interview. With a 14-inch wooden-beam breaking-plow pulled by oxen or horses, they broke the land (Shopland 1986). They planted crops, built homes from logs sometimes carried on their backs (Armstrong 1986) and mud, constructed log barns, and put up fences. And sometimes they set fire to the bush — deliberately to help clear the land and accidentally too — from which smoke wafted south to Edmonton and sometimes to Calgary (MacGregor 1972).

With homesteads scattered and travel difficult, isolation was great. Consequently, homesteaders had to be self-sufficient, supporting themselves with wild animals, farm animals, and gardens. According to personal memoirs, life was grueling. "You starved lots of times," one settler told me, reminiscing about eating rabbits , berries, and the occasional meal provided by neighbours. There was field-work to do; animals to feed; cows to milk; wood to chop; fires to stoke; water to fetch; clothes to wash; soap and candles to make; food to preserve; clothes to sew, mend, and knit; sick persons to nurse; and babies to deliver. All of these chores to do without electricity, machines, or modern transportation. Take for example, one elderly resident's memory of a trip to Edmonton:

> My dad in '17, he had one cow. And by gosh she'd kick, no matter who tried to milk her. And there was no transportation to Edmonton, and no auction sales locally here. And the only way he could get to Edmonton was to lead that cow there. So he led her to Edmonton, to an auction sale. There's lots of buyers there, you know. But anybody tried to milk her, she'd kick! So, he couldn't sell her —he couldn't sell her and buy another, so he led her back home again!

Men Leave For Work

To earn cash until the farm could provide or until homestead "improvements" were complete, men often worked off of the farm. Some men fished in nearby lakes, delivering and selling their catch across the countryside. Some men owned, operated, or worked for logging outfits, threshing outfits, sawmills, and sand and gravel pits in the Rochester area. Some men worked a few winters in a coal mine southeast of Rochester that filled eventually with water and was abandoned (Gerlach 1986). Some men worked winters in coal mines along the Rockies, at Drumheller particularly, and at logging camps in the North. And some men worked on the railway, laying track and building bridges from Edmonton to Athabasca.

Meanwhile, the women — often pregnant — stayed behind to care for the farm and family. The daughter of homesteader Annie Obstry wrote (Soroka 1986, 932):

> Steve went back to work in the mines leaving Annie to fend for herself. Annie had much wood she could chop and burn to keep warm, but the isolation from people got to her. She later said that she cried everyday for the first year. She would have walked back, but there was the ocean to cross.

Pioneers Interact

It was immigrants from European countries with similar conditions, landscapes, and climate who most successfully homesteaded the prairies (Zimmerman and Moneo 1971). Fundamental to their success were family, neighbours, and community (see Speers 1986). Dependent upon one another and cooperative, the region's new residents together built the social and physical infrastructure of the Rochester community today. Together, they built one another's barns, lay trails, and constructed and maintained roads and bridges. They built schools and churches with locally sawed lumber. In 1914, they organized the "Dokeville" school district, and in 1915 they built the first of the area's many one-room schools — Dokeville School northwest of the Rochester townsite. In 1916, they built the one-room Rochester School where Rochester School stands today. In 1922, Rochester residents built Rochester's Catholic Church, hauling lumber 46 miles with horse and wagon (Fournier 1986, 693). In 1925, they built the United Church. But church or no church, they attended service. Remembered one lifetime resident in an interview:

> Before there were any churches, there were services held. And regardless if it were a priest or Protestant, people went to church. And it was from house to house in some areas. . . . There was always a certain amount of serious religion in the district.

Other formal organizations and institutions were established, too. For example, Rochester's first Agricultural Society was organized in either 1919 or 1920, and resolved immediately to construct a community hall. In 1922 (Speers 1986) or 1923 (Rochester School 1955), it built the hall. In August 1922 (Speers 1986), it hosted the first Rochester Agricultural Fair, to which "everyone came for miles and miles in horse drawn wagons, buggies and democrats and most brought exhibits for the fair (Armstrong 1986b, 334)." According to a 1929 Athabasca newspaper account, the annual fair saw an "outstanding" standard of hogs and cattle, a "very creditable showing" of farm and garden produce, many and varied novelties, sports, hand work, and art displays. And it had a horse race. It all ended with a dance in the Rochester Hall

Earlier, in 1919, Rochester's unit of the United Farm Women of Alberta was organized, raising money to build the Rochester hall, raising money and interest to put on an annual fair, and establishing the Peaceful Pines Cemetery. In the early-1920s, the Rochester Boy Scouts was created, with summer camp held at both the Tawatinaw River ford and at Armstrong Lake (Hanlan 1986). In the late-1920s, the Recreation Club was formed, raising money for sport events and building a tennis court used through the 1940s (Speers 1986, 404). In the early-1930s, Rochester's Willing Workers and a Purebred Bull Ring — a cooperative cattle breeding program — were established.

People worked hard and, when the chance arose, they played hard, said Rochester's elderly. "It didn't cost you a fortune to have a good time," they reminisced. There were, for example, house parties, picnics, skits, socials, and dances. There were Christmas concerts, school festivals to organize and quilting bees, knitting bees, and teas. There were church choirs, Social Credit meetings, and School Board meetings. In the evenings, there was visiting, cribbage, horseshoes, and "homespun" music. Soccer with a ball of wrapped rags (Rochester School 1955), baseball, softball, hockey, and basketball attracted players and spectators from kilometres around. Reported one aging resident: "We had a [girl's] basketball team in Rochester in 1930 . . . . On July the first we went to Athabasca. And we BEAT Athabasca, so we were good!"

Tennis, too, attracted residents, especially young participants on Sunday afternoons (Rochester School 1955). The Rochester Tennis Club played Athabasca and Colinton, often providing lunch and entertainment afterward. For example, the Athabasca newspaper (October 14, 1932) reported that the Rochester Tennis Club played Athabasca and gathered afterward "as one big family," with singing, music, and dancing.

The train's daily arrival and mail delivery also drew crowds, according to one conversation among four of Rochester's seniors:

- Lot of people went to town just to see the train go by. They gathered and talked to each other.
- That's right —just to see the train go by. You come with the horses. There was a tying post. There were three stores here, a cafe.
- You would come to town with a team and wagon or buggy — whatever you had — or sleigh, and you made a DAY of it, you know.
- Oh but you visited! You came downtown and visited with your neighbours because they were downtown too."

Across many settings, area residents rubbed elbows. Said one lifetime resident:

> I lived east of Rochester, and [Muriel] lived a long ways west of Rochester, but at picnics and things like that, you know, the schools got together. And they played — we played — soft ball. Even though we lived much farther apart in those days and transportation was practically — well it wasn't nil but it was *difficult*— we still had that social life, no matter what part of the area you lived in.

Indeed, people knew each other, at least by reputation. They were friendly, helpful, and concerned about each other. Said one senior citizen, "My father would never lock the door because somebody might come by that needed to come in. And neighbours worked together. And anybody that came by that needed to stay overnight, they were *welcome*."

The Steam Engine Creates Change

It was in 1912 that the railway first rumbled into Athabasca Landing. A Canadian Northern Railway spur, it was one of Alberta's first "feeder lines" constructed to carry grain from the hinterlands to distant markets via Edmonton (MacGregor 1972). From the Morinville feeder line through the Redwater River Valley through the sandhills near Clyde over the height of land and through the Tawatinaw Valley to the Athabasca Landing, the train ran. On September 3, 1912, regular service began (Athabasca Historical Society 1986).

More Settlers Arrive

With the arrival of this railway came the greatest influx of settlers to Rochester. At first three times a week and, then, every day, the train pulled into Rochester, carrying homesteaders and freight. It delivered settlers to the land; it delivered goods to the settlers; and it carried away grain, cattle, and Tawatinaw Valley sand and gravel. The usual eight-hour Edmonton-Rochester trip sometimes took even longer: for, sometimes, in late-summer, the steam engine would stop in the sandhills so passengers could pick blueberries. Thus, the train was dubbed "The Blueberry Express (Speers 1986, 96)."

Much later, in the 1940s, a train of a different sort travelled the tracks. It was "the Skunk." It was a passenger-car-diesel-engine all in one — a street car of sorts — so-named because of its foul diesel-smell. Honking at rail crossings, it ran daily from Edmonton and Athabasca, carrying passengers and mail (Applegate 1986, 502). Meanwhile, the freight train continued running three times a week.

Community Control First Declines

The railway brought more than settlers to the Rochester region, however — it brought the first direct taste of far-away decisionmaking and the first example of community capitulation. Before the arrival of the railway, "Ideal Flat" had existed — a tiny community named by the settlers who were part of it. "Because it was the only level spot along The Valley for quite aways, it was called "Ideal Flat," reported an elderly life-time Rochester resident. After the railway's arrival, however, "Rochester" marked the map.

It was the railway that renamed it. In 1912, the name was changed — and, today, residents aren't certain why. It was named for Herbert Rochester, secretary to the general manager of the Canadian National Railway from 1909 to 1915, claimed one Rochester resident. Or, suggested another resident, it was named by a Mr. Rochester who worked on the train (Fournier 1986). Suggested yet others, it was named after Rochester, England. As well, a Rochester history report presented its own story (Rochester School 1955): the town was renamed after Rochester, New York either by two officials from that city who, upon travelling the train through Rochester, were unaware the town already had a name or by two men from that city who, having recovered their health at Ideal Flat, liked the town so much they renamed it after their own.

To be sure, throughout the prairies, railway settlement with railway names sprung up, with sidings and grain elevators and stations included. In the Tawatinaw Valley, Tawatinaw, Rochester, Perryvale, Meanook, Colinton, and Athabasca all were established, each town possessing its own inner zest, intimate traditions, and objects of attention. Indeed, it was just as the Canadian government had hoped: the transcontinental railway had opened the West. It had strengthened ties from coast to coast, and had opened the door to a national market. Thus, Britain's demand for food imports and the growing industrial demand for iron and other metals could be met. In the process, however, the government sparked the ecological and social changes that exist in the Rochester region today. The boreal forest was cleared; railway towns were built; and grain was cultivated. The Rochester settlement and the community that evolved — like other isolated pioneer settlements and communities — were transformed into an integrated agricultural community. Under the banner of Progress, change penetrated the Rochester region.

6

THE SETTLEMENT CHANGES

> Why it's the Model-T Ford made the trouble — made the people want to go
> Want to get, want to get, want to get up and go.
> Seven, eight, nine, ten, twelve, fourteen, twenty-two, twenty-three miles to the county seat.
> Whose going to patronize a little bitty two-by-four kind of store anymore?
>
> "The Music Man" soundtrack

> My log school house was gone. In its place stood Progress . . .
>
> W. E. B. Du Bois
> "On the Meaning of Progress"

> I think there's a quiet crisis happening right now. I mean, we're losing bush here and there. There's seismic lines going everywhere. The land's deteriorating. And the stress, you know: I mean, how many of us are trying to — especially as women — trying to meet our visions and raise our kids and...and everything.
>
> Rochester community member

It is a story familiar to rural North America: Industrialization, urbanization, bureaucratization, and technology changed the rural world. Small homogenous towns became farm cities, hometowns, and stop-off centres — communities of different sizes, needs, and purposes. A system emerged in which the different communities became interconnected and interdependent with each other, the nation, and the world. The once isolated and relatively self-sufficient farming community became a community linked to and influenced by global decisions.

It is the story of Canadian prairie towns specifically, wrote Zimmerman and Moneo (1971). Initially, they explained, there were thousands of small homogenous towns strung along railway tracks, with settlers working hard to make a home. As settlers became farmers working hard to make a business, these small towns prospered, supporting and supported by residents nearby. When along came transportation, roads, and consumerism, these small towns diversified. For example, where main highways and railways converged, towns grew in size, becoming "farm cities" that provided numerous and various goods and services. Where highways bypassed towns, small towns withered, becoming a "stop-off" centres unable to compete with farm-city opportunities and prices. When along came school consolidation, "home towns formed," containing the high school attended by children of surrounding communities. Eventually farm cities addressed the economic needs, and stop-off centres addressed the social and personal needs of rural residents.

It was a "prairie community system" that developed — a system critical to the understanding of any rural community, wrote Zimmerman and Moneo (19971). Certainly, it helps to understand the Rochester community. Describing the history of Rochester, it explains the community's role today. For according to the perspective of the prairie community system, Rochester is a stop-off centre that provides residents the intimate, meaningful and enduring relationships necessary to their well-being.

In the preceding chapter, I described the early history of Rochester, when settlers worked hard to make a home. Now, in Chapter 6, I describe Rochester's prosperous times when farmers worked hard to build a business out of a lifestyle. As well, I describe Rochester's decline to a stop-off centre. Concluding the chapter is a description of the environmental conditions in which people live. As with all of Part One, it is not the intent of Chapter 6 to provide a definitive investigation. Rather, the intent of Chapter 6 is to provide an overview of social change, thereby helping to provide an understanding of Rochester resident's concrete reality today.

Residents Build Businesses

A glance at the Rochester community history book *Rolling Hills and Whispering Pines* (Speers 1986) provides a clear understanding of the change that the Rochester community endured. It was change escalated by the internal combustible engine. Vehicles arrived and roads were built, permitting fast long-distance travel in every season. Farm machinery developed, allowing individual farmers to clear and cultivate large areas. Together, internal combustion plus mechanization and communication technologies transformed the Rochester community.

The Internal Combustion Brings Change

In the 1920s, for example, there was only one garage in the Rochester community. In the 1930s, there was a John Deere implement dealership as well, operating out of a local farm (Sobkowich 1986). Then came a Massey-Harris dealership and Case Implement dealership, and, in the late-1940s, a Cockshutt Implement dealership with a showroom was established. Around 1950, a International Harvester dealership was erected, its headquarters becoming a general store that sold David Brown tractors, tillage equipment, grain augers, balers, feed mixers, and fertilizers (Sobkowich 1986). And around that time, too, a Hillman car dealership did business.

With the internal combustible engine came the need for fuel, and fuel at Rochester was sold by the barrel. In the late-1940s, however, some residents installed underground tanks in town, establishing Rochester's first gas stations that pumped gas from tanks to farmers' barrels. "This was handier in a way but it took a lot of pumping to fill the farmers' barrels," Steve Sobkowich remembered (1986). In the early-1950s, an Imperial Oil bulk station with tanks, pumps and a storage shed for oils and grease was established (Sobkowich 1986).

Communication Technologies Break Isolation

Obviously the internal combustible engine took the settlement by storm. So, too, did advances in communication, delivering industrialism, urbanism, consumerism, and Americanism (Palmer and Palmer 1990). The telephone, radio, newspaper, magazines, television, moving pictures, and even records brought Rochester North American's latest trends, fads and music.

First there was the telegraph. Then the telephone arrived. It was the O'Connors who owned Rochester's first telephone — the first line to industrialism, urbanism, Americanism, and consumerism. Remembered Agnes (Czuj) Applegate (1986 502):

> People who wanted to reach any of the little towns between Edmonton and Athabasca would place their long distance calls at the O'Connor's. . . . If a call came in, they would send one of their boys to alert the people to run and answer the telephone.

Then-store-keeper Hazel Gerlach (1986) remembered that the switchboard came to Rochester about 1953, providing town-residents service between 8 am and 8 pm. Underground cables were installed in the 1960s, providing country-residents service. The automatic exchange and dial telephones came to Rochester in 1965.

Radio came to Rochester in the mid-1920s. Hooked to a battery before electricity arrived in the early-1950s, radio provided neighbourhood entertainment. Earphones were passed from person to person as family and friends listened to such events as the funeral of King George V and the coronation of King Edward VIII, to news, and to radio shows. Movies, too, delivered the outside world to Rochester. Throughout the 1940s and early-1950s, Ole Nelson showed movies at Rochester Hall. To these, families drove miles in their horse-drawn wagons. It was in the early-1950s that television came. Remembered one senior citizen:

> We had a TV on the farm, and everybody come to watch it. That was probably in the fifty-first (1951), before the power because we had the plant. Go crank it up and put the gas in — and watch TV.

Machinery Transforms Farms

Although technology instigated change before World War II (1939-1945), it was — as Zimmerman and Moneo asserted (1971) — after the war that Rochester saw rapid change. Together, a prosperous economy, an increased farm income, a shortage in farm labour, and better and cheaper farm machinery spurred mechanization throughout Alberta (Palmer and Palmer 1990). And Rochester was no exception. Before and during World War II, most Rochester residents had used horses. While some residents did band together to buy machinery and hire themselves out, most residents prized their horse-teams, some until the early-1950s. Explained one old-timer, horses were a known commodity — cheaper and more reliable than any vehicle. "Cars were available. But they cost five hundred dollars, and no one could afford them," he said.

After the war, however, machinery made its mark. Doing the jobs of many workers in less time and at less cost, machinery was quick and efficient. Decreasing the number of workers required to operate a farm; operating day and night; and requiring no food, rest, or reciprocation, machinery increased productivity. Moreover, greater incomes allowed Alberta farmers to purchase machinery (Palmer and Palmer 1990). Accordingly, in the late-1940s, Rochester farmers started operating tractors. By the mid-1950s, reported many long-time residents, most Rochester farmers operated tractors. As farm machinery improved, dropped in price, and increased in number, residents purchased binders, balers, hay stackers, threshing machines, cats, and bulldozers as well.

The new machines made farm work easier and large farms possible. Initially, a large Rochester farm comprised 100 cleared acres and four horses, remembered numerous Rochester seniors. Take Fix Farms near Armstrong Lake, for example. It began in 1914 as Anton Fix's 160-acre homestead. As machinery became larger, more specialized, and more efficient, the farm expanded to a 1,500-acre grain farm employing seven men in the 1960s. By the mid-1980s, it was a 6,000-acre grain and livestock empire worth nearly three million dollars (Howard Fix personal interview, 30 September 1996). Ultimately, just two family members operated that farm which spanned Athabasca County.

Indeed, what once had been small subsistence farms became an integral component of the Canadian economy. As farming became an industry, Rochester farms became big business. But bigger farms meant fewer farms: marginal farmers on a few cultivated acres found themselves unable to compete with large mechanized farms, and, consequently, they sold out. Disillusioned farmers abandoned homesteads. Neighbour bought out neighbour. Where once a farmstead occupied nearly every available quarter-section of the Rochester region, many quarter-sections became free of human habitation. In the words of one Rochester senior, "Machinery changed *everything!*"

Vehicles and Roads Facilitate Travel

There was more to change in the 1940s than farm machinery, however. New forms of transportation arrived at Rochester as well. Cars and trucks allowed farther and faster travel, while graveled and snow-plowed roads allowed year-round travel. Running east-west through the Rochester townsite itself, Highway 661 was built, graveled, oiled, graded and, ultimately, paved. And running north-south between Edmonton and Athabasca, Highway 2 was built 1925. It followed the train track through the Tawatinaw Valley and through the Rochester townsite. By the mid-1930s, its entire distance was graveled, graders were snow-plowing, and year-round travel was underway (Speers 1986, 206).

It was over this new highway that Rochester's third influx of residents arrived (Stone 1970). First had come the homesteaders via the Landing Trail; next had come settlers via the railway; and, then, in the early 1930s, came eastern European immigrants and dust bowl farmers dragging "Peace River or Bust" signs (Stone 1970). Earlier, in 1929, a "daily motor coach" was established. A second-hand seven-passenger Studebaker, the Collins' Brothers Bus Lines together with the train provided "reliable" transportation between Edmonton and Athabasca — and yet another link to the outside world. "We as children would meet the trains and bus to learn the news of the city from people who had made their monthly or annual trip," remembered Agnes (Czuj) Applegate (1986, 502). In 1935, the Collins' Brothers Bus Lines was taken over by Canadian Coachways (Rochester School 1955).

It was over Highway 2 that thousands of American soldiers travelled as well, lines of them driving through Rochester in 1942, enroute to build the Alaska Highway. Day and night, the convoys traveled, 20 to 30 trucks and heavy machines spaced 20 to 30 minutes apart, reported one senior citizen. "The first vehicle would force local residents off of the road and the last would help them out of the ditch," another resident remembered. And soldiers would toss cigarettes to residents in the Valley, reminisced homesteader Dick Drennon to this then-young researcher years ago.

Rochester Reaches Its Prime

To be sure, after World War II, Rochester hopped with activity. Its prosperity peaked in the 1950s as some travellers travelled through it and local farmers did business in it — *all* of their business in it. "Everyone dealt down here. Everyone had to. At first no one had cars; they only had horses. They couldn't just go to Westlock," explained one aging resident. Although the number of town residents was fewer than today (most people lived in outlying quarter-sections), the number of town businesses was greater, senior citizens maintained.

During its prosperity, Rochester had railway buildings, a railway elevator, and passenger station. There were three churches — Catholic, United, and Lutheran — the school, and the community hall. There were two general stores, one of which held the post office, bus depot, and telephone exchange. And there were two cafes, a pool hall with a back-room barber shop, a lumberyard, and a skating rink. Moreover, there were two blacksmith shops, two garages with mechanics, two gas stations, an Imperial Oil bulk station, and the John Deere, Case, Cockshutt, and International dealerships. In the 1950s, the Rochester Hotel was built and the Bank of Montreal moved to town. "No, you didn't have to go further than Rochester," a one senior citizen said.

Social Interaction Abounds

Like residents of other prairie towns (Zimmerman and Moneo 1971), Rochester residents turned to local problems after building their homes and clearing their land. In 1948, for example, they established Home and School to address concerns regarding school-centralization; this organization reportedly was the first of its kind north of Edmonton (Hanlan 1986). As well, in the 1940s, Rochester residents established the Rochester Men's Local of the Farmers' Union of Alberta. It was an organization that educated residents about the farming industry, provided members inexpensive tax service, and held festivities on Farmer's Day. Residents also organized ball teams, with school district playing school district and small town playing small town. In 1946, the Rochester Aces were organized, dominating the Northern Alberta Baseball League until 1955 (Betts and Chabun 1986). Home-team spirit thrived.

And neighbourhood interaction abounded. Reminisced one elderly resident:

> I had twenty-five people besides my family for dinner that day, on a Sunday. And quite often I could have up to that amount that I didn't know

> were coming. But everybody always was welcome. We were always able to make a good meal for them. And it was a very happy occasion to have them come.

Although no one had much money, they did have fun. There was always lots of music: "Homespun — but it was good," the seniors reported. There were parties, too. Said an elderly resident:

> I remember we used to have parties at Andrich's especially, out there by the lake — Owen Anderson's — different places. Because, in those days, well you couldn't afford to hire music and go around to a dance hall or a show that they used to show here once a week because *nobody* had money. At one time I liked to go to the show that Ole Anderson was showing. I couldn't go because I only had 25 cents in my pocket for six weeks, and it cost 25 cents to go see the show.

What's more, there were barn dances, Friday night hall-dances, and skating parties. There were community picnics, school fairs, and amateur shows. Together, Rochester residents relaxed, recreated, worshipped, and worked. On the farm and in the community, cooperation was expected: it was considered a person's "community responsibility." Road construction and road maintenance, for example, required everyone's help and provided a method to pay off one's taxes (Speers 1986, 106).

Rochester Becomes a Stop-Off Centre

In 1950, Rochester's decline was sealed, however. That was the year that the second Highway 2 was built and graveled. Ten years and some rerouting later, it was paved. Like the first Highway Two, the second ran between Edmonton and Athabasca. Unlike the first, however, the second lay on high ground some four kilometres west of the Tawatinaw Valley and bypassed the Tawatinaw Valley. In short, for the first time in their history, Tawatinaw Valley towns lay off of the beaten path. As a result, while Athabasca and Westlock bloomed into "farm cities" (Zimmerman and Moneo 1971), Rochester, Tawatinaw, Perryvale, Meanook, and Colinton all declined.

Not only did the main highway slight those towns, but so, too, did the railway, its dominance over transportation relinquished to motor-vehicles. By the mid-1950s, a truck was delivering mail, and trucks were transporting livestock and produce. Whereas, initially, Rochester farmers had delivered their cattle to Rochester's CNR stockyards for sale, by the mid-1950s, local truckers were transporting livestock to buying stations, and then — once farmers owned their own vehicles — farmers, themselves, delivered their goods (Speers 1986). By the mid-1950s, the Skunk was long gone. The freight train was running only three days a week until — as loads decreased steadily — it stopped running regularly to run, instead, just when a load warranted delivery.

The Rochester Economy Slumps

By the time the 1960s arrived, Rochester's decline was well underway, its residents reported recently. The technology that led Rochester to prosperity now led to its decline. Fewer farmers did business in Rochester: "It was just so easy to get into a car and go to Westlock or Athabasca or Edmonton," said one senior citizen in an interview. As mechanization advanced, fewer farms, fewer farm families, and fewer arm jobs existed. What few jobs did exist were increasingly specialized, requiring skilled labourers.

Consequently, it was off to the city that many young adults went, joining the ranks of the employed. It was off to training, schooling, and big city experiences that many of them travelled. "We wanted our kids to be 'better than Rochester,'" said one resident — and, so, arose the expectation Rochester children must leave for success. As the young, elderly, and disillusioned left, however, the Rochester economy slumped. Fewer jobs and fewer people meant fewer circulating dollars, which meant fewer local-business opportunities — which meant fewer jobs which meant fewer circulating dollars and so on. It was a vicious cycle that battered Rochester economics.

Schools Consolidate

School districts within the community also saw change. Consolidated in the late-1940s, they all were amalgamated by the Alberta government into the Rochester School District.[3] An elderly person said:

> The little school that I went to up there was a one-room school and one teacher. Fifty-three youngsters in it at one time. And now the school's gone.

Children from around the community were bused to Rochester School, while those attending high school were bussed to Athabasca. Only in 1964, 1965, 1966, 1967 did Rochester School graduate high school students (Speers 1986). In 1970, however, Rochester residents proposed with "overwhelming support" the return of their high school *(Athabasca Advocate*, 7 May, 1970). They wanted to keep the family closer to home, to eliminate their children's long drive to Athabasca, and to give their children greater opportunity to participate in extra-curricular activies — but the request was turned down because of lack of government funding. Eleven years later in August 1981, Rochester School lost its Grade 10 because of "lack of students*(Athabasca Advocate*, 2 August, 1981). That same year, renovations began at Rochester School (*Athabasca Advocate*, 21 October, 1981) and were completed in 1983.

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[3] Originally, school districts were small enough to allow any child within them to walk to school, some four miles by four miles in size. When pioneers wanted a school district, they simply contacted the provincial government that established one. Throughout the 1930s and 1940s, however, those tiny school districts vanished, consolidated by the Alberta government into school divisions. In the 1950's, those school divisions vanished , consolidated by the government into counties that addressed both school and municipal-district responsibilities. Most recently, in 1995, sixty-six enormous regional divisions were established in Alberta. So it was that the Rochester settlement's school districts decreased in number and increased in size, its numerous sixteen-square-mile districts consolidating into one 4,000-square-mile division over a fifty-year period.

The Rochester Community Today

The Small Town Survives

Today, Rochester is a picturesque vestige of its bustling past. Although few town-businesses exist and Main Street stands decrepit, the location of the town itself still draws comment. Turning east off of an increasingly busy Highway Two (Fig. 6.1), a traveller will pass bush and fields along Secondary Highway 661, and will drop deep into the Tawatinaw Valley. They will pass a "Welcome to Rochester" sign among the trees on the hillside and descend into scenery. To the left they'll see the school and, over the river, they'll see the hamlet. At the bottom of the valley following the tiny Tawatinaw River, they might turn north into the quiet town of Rochester.

The town is dissected by the Tawatinaw River (Fig. 6.2). On the west side near the school stands the Catholic Church, the fairgrounds, baseball diamond, and skating rink. Inside the school, the Rochester Community Library exists. Two miles south from the school lies Peaceful Pines Cemetery (or Peaceful "Pine" Cemetery to those disturbed by its trees being cut). Across the river on the east side of town stand more community buildings and town businesses.

On the east side of town are the recently-renovated community hall, the senior-citizen drop-in centre, the curling rink, the fire hall with its pumper truck, and the United Church. Down on Main Street, there is Lucky Dollar Foods ("the store") with a post office and Treasury Branch; it is for sale. Last fall, the store's underground gas tanks were unearthed by order of Alberta Environmental Protection. With above-ground gas tanks not yet installed, Rochester residents now must drive 20 kilometres to the nearest pump. "The Government doesn't care about how it hurts our rural communities," lamented an elderly resident.

On Main Street, there also is E and D Hardware ("Ernie's") that, too, is for sale. And — under new ownership — is the Rochester Hotel, in which are located the Rochester bar and cafe, the town's social centres. Although still shabby, the hotel has been recently renovated and, now, occasionally offers live music and karaoke. Inside, the cafe's new hours are from 8:30 am until 4 pm: "It's absolutely ridiculous!" complained one senior citizen who, for decades, had eaten supper there.

Although indeed it is a quiet community, Rochester is a surviving community. Of all of the settlements that once prospered in the Valley, Rochester remains the most economically viable. For example, Tawatinaw to its immediate south has withered to little more than a ski-hill. Perryvale to its immediate north — although never large — constitutes a store, a community hall, and a brand-new park. But the town of Rochester has never known more residents, the seniors reported.

Most of its founding residents have passed on, however, buried in Peaceful Pines Cemetery. The log buildings they constructed are decaying or gone. "It's all bush now. There's no sign of it. It's absolutely amazing how fast Nature takes it back," said one senior citizen remembering a pioneer's home.

The one-room schools they built together are rotting or are gone, hauled away to be someone's home or granary. Many of the trails they cleared are grown over. And the very corporation responsible for many a settler's arrival — the railway — has been picked up and carried away. The passenger station was demolished in the late-1960s; the grain elevator was demolished in 1978 (Sobkowich 1986); and the last train wound through the valley in 1991. In 1995, the railway track was picked up. "Some people cried," said one life-time resident.

Gone, too, are the winding roads. Except where the river, creeks, lakes and remaining wetlands have impeded road construction, residents drive in straight lines today. What's more, the once-indispensable Landing Trail is just another country road — clearcut or farmed to its shoulders and even plowed under in some locations. It receives no historical status and certainly no protection from the provincial government. It receives historical status and virtually no protection from the local government — the county government.

The County Governs the Community

It is county government that is Rochester's local government. A nine-member county council is elected every three years. From an electoral district that stretches from county's southernmost borders north past Perryvale, residents elect the Rochester councilor. They vote at Rochester Community Hall. Sometimes the electoral process goes no farther than nomination, however: this fall, for example, the county councillor "won" by acclamation. Although at the Rochester Cafe, residents were jostling residents to run, no one else joined the District One race.

It is the County of Athabasca to which Rochester belongs. The County of Athabasca is a county with a tax-base now deeply dependent upon heavy industry. More precisely, two-thirds of the tax base comes from the timber and petroleum industries. According to County Municipal Treasurer Brian Pysyk, (telephone interview, 18 November 1996), 48 per cent of the tax base comes from the new pulp mill, 18 per cent from the petroleum industry, 15 per cent from residential taxes, 11 per cent from commercial taxes, and 8 per cent from farmland taxes. "We're in good shape," Pysyk reported.

According to Statistics Canada records (1994), in 1991, the County of Athabasca had a population of 6,049. Of that, 4,540 were fifteen years or older. In 1991, men of that age group earned an average of $21,592 and women earned an average of $14,201.

Further, according to Statistics Canada records (1987, 1993), in 1991, 15 per cent of Athabasca County residents fifteen years and older had less than grade-nine schooling. This, compared to just 9 per cent of Albertans of the same age group. County and provincial figures both had improved since 1986, however. Additionally in 1991, only 47 per cent of Athabasca County residents fifteen years and older had completed grade-twelve schooling. Province wide, 64 per cent of

Albertans in the same age group had completed grade-twelve schooling. In summary, the average per capital income and education levels of Athabasca County lie well below those of the province.

The Economy Struggles On

No longer is agriculture the only industry in Rochester. Rather, new industries have moved into the region. In addition to the agricultural industry, there are petroleum industry, the commercial logging industry, and the mining industry that I describe in Chapter 7.

That said, however, agriculture remains Rochester's primary industry. Cattle graze and hay grows on the most marginal farmland. Grain grows on the better soils. Barley and canola constitute the settlement's primary grain crops, while wheat and oats are cultivated as well. In perfectly square or rectangular farm fields these crops grow, the sloughs and swamps that once impeded their tillage now drained. Working enormous fields, enormous machinery follows straight lines back and forth as farmers plow, plant, fertilize, spray, and harvest.

It was a decade ago the community endured the farm crisis. Across North America, a rural community crisis thundered. Pushing for increased production, farmers across North America purchased ever-more land, driving up land prices and values — ten-fold, in some Alberta regions (Lerohl 1996). Then, on the basis of inflated land values, they borrowed money. When grain prices plummeted, crop values and land values plunged and many farmers faced bankruptcy. Young farmers in particular were struck, deeply in debt. Many farmers forfeited on loans, and many farms were foreclosed. Indeed, it was at this time that the Fix empire at Rochester, for example, was dissolved, its holdings sold to reduce its ballooning debt. Many farms were consolidated. Some were bought up by absentee landowners. Out-of-town residents — including Edmonton lawyers and physicians — bought up some Rochester quarters, which they leased to local farmers.

Employment Opportunities are Limited

While agriculture continues to dominate Rochester's economy, it is a highly mechanized industry that employs few labourers. New resource industries and their spin-offs provide employment to some Rochester residents. Not only do the petroleum industry, the timber industry, and the construction industry pay wages to the employees they hire but they pay cash to the owners of the land they exploit. At the same time, some people work for local entrepreneurs. The Rochester Hotel, Pub, and Cafe together employ seven local people including the managers; Simmons Grocery Store employs four people including the store keepers; and the Rochester Hatchery southeast of town employs a handful of residents. The Tawatinaw Ski Hill employs another few residents in winter. With few job opportunities in the settlement, many people work outside of the settlement. They commute to work, most travelling to Athabasca and Westlock, and some travelling to Edmonton an hour-and-a-half south or — when there's work — the new pulp mill less than an hour northwest.

Family Businesses Exist

Operating throughout the community are many small family businesses. There is John Savage's trenching and backhoe company ("I dig. You pay. You dig?"). And there are Gary's Trucking, L. W. Lange Trucking, Lloyd's Salvage, Ideal Flats Auto Recyclers, Rainbow Ranch Services, A-W Sheet Metal, and White's Greenhouses. There is Westra and Associates Inc., a livestock management and nutrition consulting-firm. There is Martin Carlson's saw mill and others. A few cottage industries exist as well, many that come and go. Cottage industries are small-scale industries carried on at home by family members using their own equipment. There is the Rochester Honey Farm, for example. In downtown Rochester, there is the Bear Patch Gift Shop that sells "Dolls 'N Things" on weekends. "In the beautiful Tawatinaw Valley," there is Hidden Valley Bed and Breakfast, offering "rest and relaxation" and "hiking and cross-country skiing trails."

To be sure, some Rochester cottage industries reach out to the tourist industry. Just an-hour-and-a-half from Edmonton, the Rochester region occasionally hosts visitors who bring money to the settlement. They come to rest, relax, and recreate. They come to photograph and paint the scenery, pick berries, watch wildlife, ride horses, cross-country and downhill ski, snowmobile, and hunt, with some returning, buying land on which to live weekends, retirement, or a brand-new lifestyle.

Residents Spend Time and Money Away

Just as Zimmerman and Moneo (1971), change at Rochester includes a new central focus: Westlock, Athabasca, and Edmonton. Take the young people for example. An elderly resident remarked that "the young people have a lot more money to spend than what we used to — and more and different interests. Their interest is not centred in this area. They have a car to *go somewhere* , not to stay." Indeed, young people do go. And so do their parents — every day. To be sure, residents today work, shop, dine, play, and attend lessons outside of the community. School sports and spring ball games require county-wide, province-wide, and sometimes prairie-wide journeys. "There doesn't seem to be any limits to where they go to compete. It's outside the district. And we don't see those games," another elderly person commented.

The closest major business centre is Edmonton, one hundred kilometres south; the nearest business centres are Athabasca, some fifty kilometres north, and Westlock, some fifty kilometres southwest. It is from Athabasca and Westlock that Rochester community members obtain the bulk of their jobs, goods, and services, and spend the bulk of their money. There they find farm-implement and farm-supply dealerships, auction marts, veterinarian services, hospitals, elderly care, police protection, high schools, banks, restaurants, clothing stores, hardware stores, and grocery stores, for example. Neither of Rochester's stores can compete with these businesses, unable to afford to carry the centres' stock and "low-everyday" prices.

Social Activity Persists

Amid all the change, community organizations still do exist. There is, for example, the Rochester and District Agricultural Society — an umbrella organization for some other organizations.

> At one time, everybody had a little separate group, and nobody could raise enough funds to do anything of importance. And somehow there was a little bit of resentment because, you know, "you're going to get money quicker than I am." But now it's all combined together.

Since its inception in 1980, the "Ag. Society" has sponsored the Rochester and District Fair. Originally a June event, the fair is held in August now and is rated by residents to be anything from "good" to "dismal." Kicked off with a Friday-evening bathtub race, the weekend-long fair entails a pancake breakfast, a barbeque supper, and a dance. There are exhibits, some children's games, ball games, and a beer tent at the fair grounds as well. Recently, a heavy-horse pull and a horse show were added. Most importantly, however, is the parade. The community's event of the year, the Rochester parade draws a few hundred onlookers but, it seems, ever fewer floats.

In addition to the Agricultural Society, there are the Rochester Willing Workers, the United Church Women and the Catholic Ladies — composed of the same now-elderly women who composed them years ago. There are the Golden Age Club and the Rochester and District Lions Club. There are Rochester Home and School, the Rochester School's Travel Club, and the Tawatinaw Valley Young Riders Horse Club. Organizations come and go, however. Take, for example, The Voice of The Valley that was established to fight industrial clearcutting. It is quiet now, its members working individually toward the same goal.

Community organizations and community interest mean occasional community functions. The Rochester School's Travel Club holds fund-raisers, for instance. The Lion's Club puts on a turkey shoot. There are the monthly Senior's suppers, the Mother's day tea, and Christmas Supper at the school. There are the school's Christmas Concert, Spring Concert, and graduation ceremonies, too, and multi-cultural day that features residents of all heritage and a community supper, too. In January, there is Ukrainian New Years — an important event. In June, there are Farmers' Day activities and "cemetery clean-up." There also are organized horseback rides through the valley: the June birthday ride celebrating community members born in June, Jim Hardy's "It Shouldn't Hurt to be a Child" ride, and the Senior's Ride and supper. On Tuesday nights, the Ag. Society hosts a bingo, a hit with the elderly and the most lucrative event in town.

Some Participation Exists

Furthermore, there are the churches as well — places in which community members gathered traditionally. Attended primarily by older residents now, Rochester churches still see community participation. Consider the following lively conversation among senior citizens:

- There's one thing about working through the churches or in the churches here. If one has something going, they ALL come. It isn't just *that one*, you know.

- The one church puts on a supper, everybody comes.
- *Everybody!* Everybody comes!
- A lot bring a pie or something, regardless of what religion they are.
- And the same for a funeral

Senior suppers, too, draw some participation. Held once a month, they entail a volunteer effort — a committee of senior women who "throw it together" with the help of Rochester residents. "We have a very good response from people, saying I'll bring the dessert or I'll bring the salad," an elderly man explained. Senior suppers bring together as many as 100 people from inside and outside of the community.

Indeed, one Rochester resident reported two decades ago *(Athabasca News*, 2 April 1980), "Rochester people have always worked well together." Collectively, they have worked to construct community facilities, for example. They built the school's playground in the 1980s,with Lion's Club funding and residents' donated time, labour, and materials, and they constructed the Rochester Skating Rink.

"We built an ice rink with a beautiful skating — you can't call it a shack, it was a *palace!* — with a concession and the whole bit on the second floor. It was a beautiful place!" said a person I interviewed. Comprising a rink and a two-story building, the Rochester Skating Rink was designed and constructed in 1976 by Rochester volunteers; at peak construction, it entailed the cooperative work of thirty people, from ages nine to seventy (Morey 1986). Afterward, another resident explained, "every Saturday and during the week, too, the whole community used to be up there watching these kids playing people from Athabasca, from all over." Construction of the Rochester Community Hall in the early-1970s was another community endeavor. "It just shows what can be done when a lot of people get behind an idea," noted Rochester's history book (Speers 1986, 351).

In recent years, the community has created more than buildings, however. Together, community members produced *Rolling Hills and Whispering Pines: a History of the Nestow, Tawatinaw, Rochester and Perryvale Districts as Remembered and Recorded by their People*. It is a 1,237-page collection of community member stories, memories, photographs, drawings, and poems. Written, compiled, and edited by community members between 1983 and 1986, it was an all-consuming "labour of love," wrote its chief-editor (Speers 1986 3). Likewise, some other community works are produced. Every Wednesday, for example, Rochester School produces a student-written newsletter. Distributed at the store, it provides examples of student schoolwork and news of school activities and community events. And every year, the Rochester and District Lion's Club distributes a calendar topped with a community picture, local business names and numbers, and residents' birthdays and anniversaries.

Conflict Shakes the Community

A few years ago, open conflict shook the community. At the centre of debate was Rochester School. A member of the 10,423 square-kilometre Aspen-View Regional School District, Rochester School educates 93 children from kindergarten through grade nine. These students come from an area of more than 500 square kilometres, bused from the southernmost reaches of Athabasca County.

Few of their school's fifteen staff members live within the Rochester community boundaries as defined by this study.

Of concern during the conflict was Rochester School's focus and treatment of students. Two very polar, very extreme viewpoints surfaced in the community. One side charged that the school was academically inadequate, physically and emotionally abusive, and too absorbed in winning competitive sports, targeting the principal and certain teachers. Children who did not conform to the school's ideals were treated differently, it said, and parents who did not abide by its viewpoints were ignored. The majority of the community disagreed heatedly, however. With some people contending the attack was led by "outsiders," this side maintained that the school was a nurturing, intimate, and supportive learning centre. In summer 1995, Rochester Home and School held two meetings to which community members flocked to listen and to speak out. They elected a task force to investigate concerns and to arrive at solutions. Later, the Aspen-View Regional Division School Board of Education with Alberta Education held a school review. It provided constructive criticism, and it vindicated Rochester School.

Seasons Are Significant

Throughout the seasons, Rochester residents are on the land and in the elements — at least to some degree. Although they live and some work in the recent comforts of an artificial environment, residents need only step out their doors to experience the soil, plants, animals, water, river, sun, stars, wind, and rain. Be it during a winter snowstorm or summer heat, they drive to work, check their mail, and feed their cattle. Like the pioneers before them in this respect, their lives are influenced by and revolve around the changing seasons.

It is an extreme climate in which Rochester residents live. Reports between 1961 to 1990 from the nearest Environment Canada weather station fifty kilometres northeast concur (Environment Canada 1993). August is the warmest month, with a daily mean of 16.3°C. January is the coldest month, with a daily mean of -15.7°C. Temperatures fluctuate drastically, however. During the 30-year period, August temperatures ranged from -1.5°C on August 26, 1982 to 34.5°C on August 10, 1981, and January temperatures ranged from -46.1°C on January 27, 1966 to 11.7°C on January 23, 1968. The 30-year high was 34.5°C and low was -46.1°C. The average annual temperature was 1.8°C.

Environment Canada records further indicate that an average precipitation of 501.4 millimetres falls annually on the Rochester region. Nearly three-quarters of that falls in May through August, with most falling in July. Indeed, July is the region's wettest month with an average precipitation of 100.8 millimetres. March is the region's driest month with an average precipitation of 21.7 millimetres.

Precipitation may fall as snow during almost any month. Environment Canada's 30-year record reports snowfall from September through May, and snow cover at the close of every month from October through April. The deepest snow cover exists at the end of January and February — an average of 36 centimetres each month. It is during December, January, and February that most snow falls:

December receives an average of 25.3 centimetres of snowfall, January an average of 25.4 centimetres, and February an average of 22.0 centimetres. Average annual snowfall is 137.6 centimetres.

In daylength as well as in climate, the Rochester region sees pronounced change. Residents endure a large seasonal fluctuation in both temperature and daylength: summer days can be 70 degrees warmer than those of winter, and are ten hours longer as well. More precisely, June brings seventeen-plus-hour days and eternal twilight, with the sun rising at about 4:00 am (5:00 am, daylight savings time) and setting after 9:00 pm (10:00 pm, daylight savings time). December, however, brings barely seven-plus-hour days, from nearly 9:00 am to just after 4:00 pm (Sunrise and Sunset — Edmonton, Alta 1970).

To be sure, it adds up to a long summer days in a short warm growing season and a long severe winter. In spite of air-conditioned tractors that sport CD players, cars that start from the kitchen, home computers that reach into cyberspace, and all of the other ever-new and ever-more technologies that now pervade the Rochester community, people still are tied inextricably to the land. They live on it. They are part of it. Their livelihoods and futures — indeed, their very lives — depend on its good health.

7

INDUSTRY ALTERS THE LAND

> Whatever befalls the Earth, befalls the sons and daughters of the Earth. If we spit on the ground, we spit upon ourselves. This we know — the Earth does not belong to us, we belong to the Earth. Like the blood that unites one family, all things are connected. Whatever befalls the Earth, befalls the sons and daughters of the Earth. We did not weave the web of life; we are merely a strand in it. Whatever we do to the web, we do to ourselves.
>
> Chief Seattle
> Upon surrendering tribal lands
> 1856

> Technology is of no use to us if it is used without respect for the earth and its processes.
>
> Aldo Leopold
> *The Sand County Almanac*

> And Daddy won't you take me back to Muellenburg County
> Down by the Green River where paradise lay?
> Well, I'm sorry my son but you're too late in asking
> Mr. Peabody's coal train has hauled it away.
>
> "Muellenburg County"
> by John Prine

As previous chapters of this dissertation have illustrated, the history of the Rochester community is the history of both the land and the people. It is the land that gives the community its reason for being and its character. Moreover, it is a healthy and diverse natural landscape that sustains the Rochester people (see Curthoys 1995) — and, in turn, it is the people who determine the health and diversity of the natural Rochester landscape. Interconnection and interdependency exist. But today, as Sim (1988, 28) pointed out, the land of rural communities is at risk, verging on exhaustion or being paved over by industry and housing developments.

The land of the Rochester community is no different. Farmland is cleared, fertilized, and biocided for crops distributed globally. Tawatinaw Valley is mined for sand and gravel used inside and outside of the community. Forests are cut to supply Japanese paper mills, B.C. and Alberta lumber mills and, ultimately, global markets. At the same time, seismic lines criss-cross quarter sections, while gas wells, gas plants, and pipe lines provide fuel nation-wide. Indeed, the Rochester area doesn't provide just grain to the rest of the world anymore — it supplies its entire landscape.

The purpose of this chapter is to provide an understanding of the land of the Rochester community today and to begin to examine the impact that humans have upon it. Beginning with a look at the boreal forest ecosystem, this chapter moves on to a look at the different industries that operate within Rochester and their impacts on the countryside. It concludes with a brief review of conservation attempts at Rochester and associated environmental regulations.

The Boreal Forest Blankets Rochester

To begin, the Rochester community lies at an elevation ranging from 640 metres in the southwest near Dapp Lake to 693 metres directly southeast of the townsite (Energy, Mines and Resources Canada 1991a, Energy, Mines and Resources Canada 1991b). Its high point lies on the "East Hill" — on the uplands southeast of the Rochester hamlet; its low point lies within the Tawatinaw Valley's northernmost reaches. There in the valley, the Rochester hamlet itself lies at 610 metres.

It is a humid continental climate that blankets this community. It is a climate of pronounced seasonal change, having a short warm growing season and a relatively long severe winter. Here, what is called the "mixedwood boreal forest (Rowe 1972)" or the "mixedwood ecoregion (Strong and Leggat 1992)" of the boreal forest exists. It is the transition zone between the aspen parkland just 20 kilometres south of Rochester (Strong 1992) and the boreal forest to the north.

The largest forest on Earth, the boreal forest spans all of the countries of the far north. In Canada, it reaches from coast to coast and south beyond Rochester, and covers 3.24 million square kilometres. At Rochester, it is a patchwork of trees, peatlands, and water. Aspen, spruce, and paper birch grow in the uplands; jackpine dominates sandy ridges; and black spruce and tamarack dominate lowlands where peatlands exist.

Seven Tree Species Dominate the Region

Seven species of trees dominate the mixedwood boreal forest: trembling aspen *(Populus tremuloides)*, balsalm poplar *(Populus balsamifera)*, paper birch *(Betula papyrifera)*, white spruce *(Picea glauca)*, black spruce *(Picea mariana)*, jack pine *(Pinus banksiana)* and tamarack *(Larix laricina)*. Trembling aspen, balsalm poplar and paper birch are deciduous trees with broad leaves that change colour and drop off in autumn. White spruce, black spruce, and jack pine are conifers with cones and needle-like leaves that fall steadily year-round. And tamarack is a conifer with needle-like leaves that turn golden and fall to the ground every autumn.

Each of these species has its own requirements. For example, aspen grows best in direct sunlight, in medium-textured and relatively well-drained soils (Westworth, Ewaschuk, and Brusnyk 1983). Like aspen, balsalm poplar requires direct sunlight but grows best in moister soils. Beneath both species, an herbaceous and shrubby underbrush grows. As Kjearsgaard (1972) noted, there are large shrubs like willow *(Salix* spp.*)*, dogwood *(Cornus* spp.*)*, chokecherry*(Prunus virginiana)*, saskatoon *(Amelanchier alnifolia)*, high-bush cranberry *(Viburnum trilobum)*, low-bush cranberry *(Viburnum edule)*, and pin cherry *(Prunus pensylvanica)* . There are smaller shrubs like honeysuckle*(Lonicera* spp.*)*, gooseberry*(Ribes* spp.*)*, rose *(Rosa spp.)*, snowberry *(Symphoricarpos albus)*, raspberry *(Rubus idaeus)*, dewberry *(Rubus pubescens)*, beaked hazel *(Corylus cornuta)*, and buffaloberry*(Shepherdia canadensis)* flourish. There also are herbs like wintergreen *(Pyrola* spp.*)*, horsetail *(Equisetum* spp.*)*, fireweed*(Epilobium angustifolium)*, wild sarsaparilla *(Aralia nudicaulus)*, wild peavine *(Lathyrus ochroleucus)*, Lindley's aster *(Aster ciliolatus)*, northern bedstraw *(Galium boreale)*, American vetch *(Vicia americana)*, wild strawberry *(Fragaria glauca)*, and wild lily-of-the-valley *(Maianthenum canadense)* . And, sometimes, there are grasses like marsh reedgrass *(Calamagrostis canadensis)* and slender wheatgrass *(Agropyron trachycaulum)*.

Although aspen and poplar require open sunshine, white spruce does not. It grows in the same soils as aspen and poplar but in indirect sunlight. As a result, it sprouts in the mature aspen stand and — when unchecked by fire or logging — it eventually dominates the stand. Shade-tolerant and less preferred as animal forage, white spruce sprouts where dead and dying aspen leave small openings in the canopy and where snow has broken aspen branches.

Within the white spruce stand, environmental conditions differ from those within the aspen stand. Sunlight is more subdued; air and soil temperatures are cooler in summer and autumn but warmer in winter, and — because needles, twigs, and mosses intercept rainfall — humidity is lower and soil is drier (La Roi 1967). Needles layer the forest floor. White spruce of all ages grow. Mosses blanket the floor, while low-growing herbs like wintergreen, bunchberry *(Cornus canadensis)*, twinflower *(Linnaea borealis)*, wild lily-of-the-valley, and shrubs like rose, gooseberry, and river alder *(Alnus tenufoli)* compose an open understory.

In short, aspen stands and spruce stands blanket the boreal uplands. But a third stand grows, too: an aspen-spruce stand. Here, both aspen and spruce grow, intermixed as well as in distinct groves. Beneath each grove grows an understory associated with its dominant species. Beneath the intermixed bush grows a transitional-looking underbrush composed of plants of both stands. It is no simple transition, however. Instead, wrote La Roi (1967), it is another important component of the mixedwood boreal forest, providing habitat and diversity upon which particular species depend.

Other tree species have other requirements. Paper birch requires direct sunlight, growing best in well-drained sandy or silty soils along streams and lakes. Jack pine needs well-drained soils, growing best in sandy and gravelly soils. Beneath jack pine grow other species able to survive dry conditions — green alder *(Alnus crispa)*, rose, bearberry *(Arctostaphylos uva-ursi)*, Canada blueberry *(Vaccinium myrtilloides)*, for instance, a few grasses like wild rye *(Elymus innovatus)* and ricegrass *(Oryzopsis pungens)*, and some species of lichen.

Peatlands Exist In the Rochester Region

Black spruce and tamarack prefer organic soils. Organic soils are soils developed from the accumulation and decay of organic matter, different from mineral soils that result from the breakdown of minerals. Organic soils are called peat — "unconsolidated soil material consisting largely of decomposed or slightly decomposed organic material accumulated under conditions of excessive moisture (Rowe 1972)." Tracts of peat more than forty centimetres deep (Nicholson and Halsey 1992) are called peatlands.

Peatlands are the wetlands of a cool humid climate. Moreover, they are an important component of the boreal forest. Intercepting and absorbing precipitation, they store surface water, and, consequently, stabilize stream flow and prevent flooding. They absorb elements like nitrogen and phosphorous and, therefore, reduce water pollution. They prevent erosion. They create a sink of suspended material, filtering water and, therefore, improving the quality and quantity of water that flows into lakes and rivers. Furthermore, they provide a diversity of habitats.

Peatlands compose one-fifth of Alberta's landscape (Westworth and Associates 1990). Those of the Rochester region constitute some of central Alberta's most southern peatlands (Nicholson and Halsey 1992). They are located in depressions and flatlands of the region, and contain peat one- to two-metres deep (Tedder, Ferguson, and Karpuk 1981).

On top of peat, plants grow. Peatlands called fens exist where groundwater provides nutrients to these plants. Here, tamarack, bog birch *(Betula glandulosa)*, willow, and sedges *(Carex* spp.*)* grow. Brown mosses grow in richer fens, and sphagnum mosses *(Sphagnum* spp.*)* grow in nutrient-poor fens (Kuhry 1992). Peatlands called bogs exist where plants depend entirely upon precipitation for nutrition. Bogs are acidic — they are nutrient-poor wetlands in which only plants that can tolerate nutrient deficits grow. Black spruce, Labrador tea *(Ledum groenlandicum)*, sphagnum mosses, and lichens (Kuhry 1992) grow in bogs, bordered often by birch *(Betula* spp.*)* and willow.

Water Abounds in the Rochester Region

Throughout the mixedwood boreal forest there is water. In addition to peatlands, there are ponds, lakes, streams, and rivers. Groundwater lies close to the surface, and numerous aquifers exist. In the Tawatinaw Valley and its associated coulees, springs flow (Tedder, Ferguson, and Karpuk 1981)[4]. These springs are a well-recognized attribute of Rochester. Said Rochester resident, for example, "We've got incredible water. We've got some of the nicest water in Alberta — *clean* water — coming out of these out of the banks of the valley."

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[4] Groundwater is water that has accumulated from precipitation and has soaked into the ground, filling rock and soil pores. Like a sponge, the ground soaks up rain at some places -- and it leaks out water at other places (Press and Siever 1986). The accumulation and movement of groundwater depends upon the porosity and permeability of sediments in the ground. Porous sediment has a lot of pore space between rock grains or crystals and, so, can hold a lot of water. Permeable sediment allows fluid to travel easily though it. Where sediment is both porous and permeable -- where unconsolidated sands and gravels lay in the Rochester region, for example -- groundwater flows easily under the influence of gravity. Where this rock is saturated with water, "aquifers" exist. And where a valley wall intersects an aquifer, water seeps to the surface and gives rise to a spring.

Creeks and Rivers Flow

Some bodies of water are seasonal, fed by snowmelt and rains. Other bodies of water are permanent, fed by groundwater and run-off, and large enough to be named. In the Rochester region, there is the Tawatinaw River, for example, that meanders through the Tawatinaw Valley. There is Stony Creek as well, that flows through a deep steep glacial outwash channel into the Tawatinaw River. And there are Pine Creek and Bulloque Creek or "Phantom River," small, sluggish creeks that flow through relatively level terrain, their banks slightly eroded and basins slightly downcut. Pine Creek originates in the eastern reaches of the Rochester and flows northeast into the Lac La Biche River. Phantom River flows southwest into Muskeg Lake, Dapp Creek, and, then, the Pembina River. All of these waterways ultimately flow into the Athabasca River.

Ponds and Lakes Exist

There are ponds and lakes too. Armstrong Lake or God's Lake is the largest, shaped like the U.S., 4.6-metres deep (Prepas and Dunnigan 1986), and covering roughly 240 hectares (Klatt 1995). It is one of the few named lakes in the area, named for the Armstrong family that homesteaded its shores. Just south of the Rochester hamlet lies another named lake, Tawatinaw Lake, which is actually the widest part of the Tawatinaw River. Covering some 50 hectares (Klatt 1995), Tawatinaw Lake is 4.3-metres deep (Prepas and Dunnigan 1986). It is being slowly overtaken by plants.

Most lakes of the Rochester community are shallow and small, blanketing between 4 and 25 hectares (Westworth, Ewaschuk, and Brusnyk 1983). They have low, gently sloping banks and soft organic shores (Westworth, Ewaschuk, and Brusnyk 1983). Some are seasonal, seeping into the soils beneath them or evaporating (Tedder, Ferguson, and Karpuk 1981). Others are permanent, draining via streams into one another, into marshes, or into the silts, sands, and gravels beneath them.

Rochester Lies In the Athabasca-River Watershed

Like Rochester creeks and rivers, all of these lakes drain into the Athabasca River. The Rochester region lies within the Athabasca-River watershed. The lakes of the western third of the region drain into the Pembina River to the west, which flows into the Athabasca River. The lakes of the eastern two-thirds of the region drain into the Tawatinaw River, which also flows into the Athabasca River. The Athabasca River, in turn, flows 1,400 kilometres northeast into Lake Athabasca, which drains into the Slave River, which flows into Great Slave Lake, which is the beginning of the Mackenzie River, which flows into the Arctic Ocean. Indeed, raindrops that fall on the Rochester countryside ultimately end up in the Arctic Ocean.

Wildfire Is Part of the Boreal Forest

"Inextricably woven" into the web of the boreal forest is wildfire (Rowe and Scotter 1973). The forest evolved with wildfire, having burned periodically throughout history. Today, the forest still burns routinely — although, now, many fires are started by humans rather than lightning (Pruitt 1978).

Rarely does wildfire burn everything in its path. Instead, it dances here and there, often burning no more than four hectares (Rowe and Scotter 1973). Accordingly, it leaves unburned patches in a large burn and — conversely — burned patches in an unburned landscape. In other words, it creates a mosaic. Wildfire creates a mosaic of stands of different species, different ages, and different genetic compositions.

Wildfire Ensures Ecological Health

Without wildfire, the forest "could be completely dominated by the longer-lived conifers (Wein 1992)." Where wildfire has burned, however, sun-loving or pioneer" species grow. Take a white spruce stand, for example. After a wildfire, aspen invades, reproducing vegetatively from surviving roots and stems. It sprouts. It becomes established. And, for some 50 to 80 years, it dominates — until white spruce again takes hold. Then, for the next few hundred years, white spruce dominates the stand — until fire again burns or snow breaks off branches and creates openings in which aspen again can grow.

Wildfire helps to keep the mixedwood boreal forest a truly *mixedwood* forest. It burns through some stands more than others, with varying intensity, season, size, and frequency (Wein 1992). More specifically, wrote Wein (1992), wildfire might burn through a jack pine stand every 50 to 100 years and through the understory of aging jack pine stand with widely spaced trees every 15 to 20 years. It might sweep through white spruce every 100 to 150 years; black spruce in upland soil about every 120 years; and black spruce in wetter areas about every 200 years. Because peatlands are wet, they might burn just every 400 hundred years — although they might burn lightly more often.

Species have adapted to this situation. For example, jack pine — which grows in dry areas with abundant fuel — quickly re-establishes itself after a fire. Its resin-sealed cones open and release seeds; its seeds sprout quickly; and its hardy seedlings grow rapidly in the post-fire condition (Rowe and Scotter 1973). There are other fire-adapted species as well. Some species reproduce vegetatively: aspen, balsalm poplar, birch, shrubs like alder *(Alnus* spp.*)*, willow, bearberry, Labrador tea, and Canada blueberry, and herbs like fireweed and various sedges. Some species reproduce via tiny wind-borne seeds: aspen, birch, and willow. And some species reproduce via tiny seeds carried by running water: willow and alder, for example. All of these species are adapted to harsh environmental conditions, invading a burned area rapidly, growing vigorously, and developing best in direct sunlight (Rowe and Scotter 1973).

A Wildfire Is Not A Clearcut

Contrary to current timber-industry claims, wildfire and logging are not the same. Logging — particularly clearcutting or the practice of cutting every tree in a particular area and removing those considered merchantible (Hammond 1991) — does not mimic wildfire. Nor does the tree plantation that might follow clearcutting mimic the natural forest.

As Hammond explained (1991), unlike clearcutting, wildfire burns trees of all ages, species, and genetic composition. It rarely kills all trees in an area and never kills just the oldest or largest trees of a particular species. It seldom destroys the microorganisms or the organic matter in soil — and, thus, it leaves behind soil rather than sterile dirt. As well, wildfire leaves behind vegetation above ground from which soil rebuilds — organic matter that decomposes and fertilizes the soils, reduces erosion, and creates animal habitat. Furthermore, it breaks down nutrients, releasing them into the soil. Additionally, wildfire bypasses some areas of the forest for long time-periods, providing refugia to plant and animal species poorly suited to harsh post-burn conditions and seed sources from which plants and animals can disperse geographically (Rowe and Scotter 1973).

After a fire, a forest grows; after a clearcut, a tree plantation might grow. A plantation, Hammond (1991 61) wrote, is "a counterfeit forest which cannot sustain itself or other forms of life because it lacks the diversity, essential to the very definition of 'forest.'" In a tree plantation, trees of desired species are planted and left to grow. In some plantations, they are fertilized and thinned, with unwanted plants and animals eradicated or controlled.

On the other hand, it is succession that occurs in a natural forest. Succession is a relatively orderly and predictable change that naturally follows a fire. It involves a series of plant communities moving through the burned site, beginning with a pioneer community and ending in a climax community. A climax community is the "relatively stable [ecological] community that appears to perpetuate itself in the absence of disturbance (Houston 1979)." During each stage of succession, living and nonliving things interact and modify the site, preparing it for the next stage, and creating the mosaic of habitats critical to animal diversity.

Succession Regenerates the Forest

Specifically, after a wildfire, soils warm, ground-humidity decreases, sunlight hours increase, and winds dry the soils and disperse seeds. A range of microorganisms, plants, and animals move through and into the burned site. Pioneer species stabilize and fertilize the soil, and provide windbreak and shade. Mosses reduce soil temperatures, increase soil moisture, reduce soil erosion, and, therefore, improve seedbed conditions. Insects pollinate the plants, carry fungi spores to fallen trees, and honeycomb the wood of fallen trees, providing a sponge that holds soil and stores water. Fungi and earthworms break down wood and leaves, and return nutrients to the soil. And birds and mammals introduce and disperse seeds.

Behind plant succession comes animal succession. Certain animal species exist best in certain stages of plant succession. For example, moose *(Alces alces)*, white-tailed deer *(Odocoileus virginianus)*, beaver *(Castor canadensis)*, and sharp-tailed grouse *(Tympanúchus phasianéllus)* prefer early stages of succession. Woodland caribou *(Rangifer tarandus)*, fisher *(Martes pennanti)*, marten *(Martes americana)*, and spruce grouse *(Dendrágapus canadénsis)* prefer late stages of succession.

In short, wildfire is responsible for much of the diversity of the boreal forest (Rowe and Scotter 1973). As part of the mixedwood boreal forest, it is part of the Rochester region. At the turn of the century, for example, wildfire burned vast spruce forests in the Rochester region (Kjearsgaard 1972). More recently, in the springs of 1961 and 1964, it burned through a northeast chunk of the Rochester region. In 1967 and 1968, it again burned through much of the same area, most recently when "unusually dry conditions and easterly winds prevailed (Rusch, Keith, and Meslow 1971)."

The Value of Rochester's Forest

The Sun is the source of all energy on Earth. Providing energy that powers photosynthesis, the Sun is responsible for the energy and oxygen that animals require to exist. More specifically, the Sun fuels the process whereby plant cells turn carbon dioxide and water into sugar, releasing oxygen in the process. The sugar created powers the development of plant roots, stems, leaves, fruits, and flowers — which, in turn, provide animals the complex organic compounds and fuels that they need to live.

Interconnection is the name of the game.

Carnivores eat herbivores that eat plants that extract nutrients from the soil. Water, carbon, nitrogen, phosphorous, calcium and sulfur cycle ceaselessly. Living and nonliving parts of an ecosystem interact to produce an exchange of materials between the living and nonliving parts. Even microscopic decomposers have their place and function, breaking down dead organic matter. In the process, they prevent dead bodies from accumulating, produce food for other organisms, and recycle nutrients through the ecosystem. They also help to dissolve minerals out of rocks, thereby making minerals available to plants and animals.

Like every ecosystem, the mixedwood boreal forest in which the Rochester community exists is an interconnected web. Like every ecosystem, the health of the mixedwood boreal forest depends upon the good health of Earth — and, in turn, the health of Earth depends upon the good health of the mixedwood boreal forest. For example, in concert with particularly the rainforest, the boreal forest acts as Earth's lungs. It cleans carbon dioxide from the air and creates oxygen.

As well, the boreal forest stores carbon and, thus, checks global warming that arises when high levels of atmospheric carbon accumulate. More specifically, plants store the carbon dioxide used in photosynthesis in their leaves, roots, and stems. Approximately 50 per cent of a tree's dry weight is carbon, for example (Hammond 1991). When that tree is burned, however, its carbon is released in the form of carbon dioxide; when forests, peatlands, grasslands, oil, natural gas, and coal are burned each year, some six billion tons of carbon within them are released (Zimmer 1996). The resulting carbon dioxide forms an atmospheric carbon blanket that prevents Earth's long-wave radiation from escaping. Global warming results with negative consequences. There may be a southern shift of the boreal forest, (Wheaton and Singh 1988): the forest's southernmost edge may shift 250 to 900 kilometres north, leaving the Rochester community in grassland.

Trees of the mixedwood boreal forest play other roles vital to the good health of Earth. For instance, they release water vapour into the atmosphere. Absorbing water from the soil, their roots use water for growth and return it to the atmosphere, in the process creating rain-producing cloud, regulating temperatures, and — because trees release water over a long time-period — preventing droughts. As well, these trees reduce flooding by storing water, intercepting precipitation, and stabilizing the soil. They prevent soil erosion. They clean the water, absorbing elements like nitrogen and phosphorous. Even in death, the trees of the mixedwood boreal forest are important, releasing nutrients as they decompose — nutrients that other plants can use quickly.

In life and death, the trees of the mixedwood boreal forest are important to the planet. Moreover, they are important to the forest itself. For example, aspen neutralizes soil made acidic by decomposing conifer needles, absorbing calcium through its roots and incorporating it into the soil when its leaves fall. It is an important food source as well. Willow and alder also are a food source, feeding moose, beaver, grouse, and snowshoe hare *(Lepus americanus)*, for example. And, too, alder fixes nitrogen. Birch provides feeding stations for the yellow-bellied sapsucker that drills holes into it and for the insects attracted to the sap oozing from those holes — insects upon which the sapsucker, hairy woodpecker *(Picoídes villósus)*, downy woodpecker *(Picoídes pubéscens)*, flying squirrel *(Glaucomys sabrinus)*, and some bat species eat (Riewe 1992). Furthermore, birch furnishes energy-rich seeds important to small birds, mice, and voles in winter.

Alive and dead, trees are integral to the mixedwood boreal forest. Dead trees provide homes, nesting sites, and feeding sites for many animals. At least 14 species of boreal mammals use standing and fallen dead trees in aspen stands for nesting, denning, hibernating, breeding, foraging, or cover (Westworth, Brusnyk, and Burns 1984). And marten, fishers, northern flying squirrels, short-tailed weasels *(Mustela erminea)*, dusky shrews *(Sorex monticolus)*, and several species of bats roost or den in large standing or fallen trees in aged conifer stands (Fairbarns 1991).

Thousands of Species Make the Forest

Although the most obvious component, trees are just one component of the boreal forest. There is more. According to one report (Holmberg photocopy), there are roughly 20 species of shrubs. There are more than 400 species of other green plants, more than 100 species of algae, more than 200 species of fungi, more than 50 species of lichens, and more than 300 species of bacteria. There are as many as 50 species of mammals, 204 species of birds — 30 of which are residents, 172 breeders, and 32 transients — 23 species of fish, 6 species of amphibians, and 2 species of reptiles (Bakshi and Holmberg 1986). And still there is more. As well, there are more than 200 species of spiders, more than 20,000 species of insects, and more than 200 species of other invertebrates.

Interconnection in Action

The complexity of the boreal forest crystallizes with a look at the snowshoe hare *(Lepus americanus)* life-cycle. Like all species that inhabit the forest at Rochester, the snowshoe hare is well-adapted. Shrubby underbrush and its brown coat camouflage it from predators in summer, while its white coat camouflages it in winter. Moreover, its huge furry hind feet with wide-spreading toes carry it over snow and allow it to reach progressively higher food as snow deepens. Although it inhabits both deciduous and coniferous stands, the snowshoe hare prefers the dense underbrush of young trees, saplings, and shrubs. It browses on willows, poplars, birches, and alders — and on additional herbs in summer and conifers in winter (Keith 1990).

Of special interest is the hare's ten-year cycle. Every eight to 11 years, snowshoe hare populations cycle in approximate synchrony. From Alaska to Newfoundland, their numbers rise and fall within two to three years of each other. In the Rochester region, populations peak at average densities 100 times greater than at their low (Keith 1990). More precisely, Rochester research revealed peak densities of 1,359 hares per 100 hectares in 1970 and peak averages of 1,086 hares per 100 hectares (Keith 1990); five years later, the snowshoe hare population bottomed out, its densities plummeting to zero in some areas (Keith 1990).

Why snowshoe hare populations cycle, no one is certain. It is clear, however, that the hare, its food, and its predators are closely intertwined — that winter food shortages and predation both play vital roles in the population decline, their relative roles varying from place to place. It has been suggested (Keith 1990) that as the enormous hare population exceeds its winter food supply, food shortage ensues, malnutrition follows, and hares often disperse to open areas in search of food. Starvation, primarily, kills the hares the first few months. Malnutrition and predation together kill them the next two winters. And predation alone kills them for some time after that. In the fall and early-winter following the peak summer, the young die, especially in extreme cold. Then, adults die in increasing numbers as winter progresses. Birth rates crash, and — with survival rates — remain low during the three to four years following the peak. During the fifth year, the population bottoms out. At this time, survival rates and birth rates improve, and the population increases once again.

Meanwhile, the hare's predators are affected. Cycling right behind the snowshoe hare population are populations of its primary predators — in the Rochester region, they are the lynx, coyote *(Canis latrans)*, great-horned owl *(Bubo virginianus)* , and goshawk *(Accipiter gentilis)*: Wrote Keith (1984 722): "As hare numbers fall, the ratio of predators to hares increases, as does the impact of predation on the hare population. This extends the cyclic decline beyond the period of winter food shortage, and drives the hare population still lower. The resulting scarcity of hares then causes predator populations to drop to a low level. Now largely free of predation, and with winter food once more abundant, the snowshoe hare population begins another cyclic increase."

Of all predators, the lynx cycles most violently, one or two years behind the hare cycle. But it doesn't stop there. Alternative prey of snowshoe hare predators cycle, too — the ruffed grouse *(Bonasa umbellus)*, spruce grouse *(Dendragapus canadensis)*, and sharp-tailed grouse *(Tympanuchus phasianellus)*, for example. And, although some alternative prey like the red squirrel *(Tamiasciurus hudsonicus)* do not cycle, they, indeed, are affected (Keith telephone interview, 1 February 1996). Plants, too, are affected. Unpalatable species like the high-bush cranberry (Viburnum trilobum), low-bush cranberry *(Viburnum edule)*, snowberry *(Symphoricarpos albus)*, and honeysuckle *(Lonicera spp.)* increase in number during a snowshoe hare high (Pease, Vowles, and Keith 1979). And succession from aspen to white spruce slows (Keith 1984). Clearly, the ten-year cycle is more than a snowshoe hare cycle — it is a boreal forest cycle. It is a complex cycle that involves many strands of an interconnected web.

Human Activities Transform the Land

So it is. Plants, animals, and microorganisms of the boreal forest are linked inseparably to each other and to the Earth upon which they evolved. Together, the living and non-living things compose an intricate web. It is a web of which Rochester residents are part. The lives, livelihoods, and future of the Rochester people depend upon a healthy forest ecosystem.

But, today, rapid and unprecedented change tears at the web of that ecosystem. Just as Rochester economic and social structures have changed, so, too, has the land. Populations of some boreal species have decreased over the years. For example, the woodland caribou has vanished from the Rochester community (see Speers 1986; Soper 1964, 364), an animal especially sensitive to human encroachment. Other animals sensitive to both human activity and overhunting have become scarce as well: the lynx *(Lynx lynx)*, river otter *(Lutra canadensis)*, marten *(Martes americana)*, wolverine *(Gulo gulo)*, and fisher *(Martes pennanti)* declined in number. Wolves — still viewed as "cattle killers" by some — are shot and poisoned. Humans have come to Rochester and brought with them ecological transformation.

Industrial Agriculture Degrades the Land

Ever since telegraph lines were first installed on the Landing Trail in 1904, mechanization and technology have been part of the Rochester community. Not only have they revolutionized farming, however, but they have transformed the mixedwood boreal forest as well. Take a look at the agricultural chemical industry.

The agricultural chemical industry developed and marketed technologies that increased production — but it brought adverse impacts as well. Fertilizers, for example, release nitrous oxide into the atmosphere, helping to fuel the greenhouse effect (Suzuki 1990, 174). And biocides (herbicides and pesticides) enter the food chain and seep into groundwater, lakes, rivers, and streams. Biocides have been linked to decreased sperm counts, increased cancer rates, reduced IQ, and disruptive behaviour (Colborn, Dumanoski, and Peterson Myers 1996).

Meanwhile, as Rochester farmers progressed from summer-fallowing and crop rotation to "minimum till" plus fertilizers and biocides, they utilized increasingly larger machinery to clear increasingly larger tracts of land, often without leaving windbreaks. And they drained wetlands. Consequently, the wintering grounds, summer habitat, and nesting sites of many boreal species were disturbed, and the large intact spaces important to some boreal species were fragmented. What's more, land considered too marginal for crop production was used to pasture cattle. "If nothing else, [peatland] grows hay," a Rochester resident commented.

Logging Removes Trees and Money From the Community

Like the commercial agricultural industry that developed, the commercial logging industry also tears at the web of the boreal forest ecosystem. Initially, Rochester logging activities entailed small local operations in which farmers logged their land and their neighbours' land for lumber and firewood. Some lumber was exported, an elderly resident recalled. "My dad cut ties for the railroad, and they were shipped out by railroad. And then also, a little later, there were fence posts that were shipped out by rail," she said. But, on the whole, lumber was needed and used locally.

Like those early residents, a few Rochester residents today log selectively and operate their own mills. From one selectively logged 30-acre woodlot, a quarter of a million board feet of spruce has been taken out since 1967. "And there are still large spruce to cut," said landowner Martin Carlson. What's more, he added, "It always looks the same." Indeed, selective logging Rochester can safeguard both the ecosystem and aesthetics of the boreal forest, provide loggers, sawyers, and landowners extra income, and furnish a sustainable supply of low-cost lumber. But, instead, a community member observed, many farmers go the way of commercial logging.

There are Rochester landowners that sell their trees to contractors and companies from as far off as British Columbia. The contractors offer easy and immediate cash to cash-poor farmers plus the prospect of more albeit marginal farmland and pasture. They pay $40 a tonne (about $20 for an average-sized spruce tree), delivering logs to the mill for at least $80 to $120 a tonne, said Alberta's Woodlot Program Manager Wood Ken Glover in a telephone interview (17 October 1996). If Rochester landowners would selectively cut and saw the trees themselves, however, they could earn as much as $120 (about $60 for a tree) rather than $40 a tonne — and if they planed that lumber, they could earn even more, reported another local logger Howard Fix (telephone interview, 16 November 1996). With some effort, Rochester farmers could selectively cut and saw the trees themselves, or they could hire local loggers and sawyers for 25 per cent of the sawed lumber's value. Rather, one resident observed, on their cleared land they grow grain for less profit than sustainably logging would have brought them and complain about the high-cost of lumber.

Moreover, the cash landowners receive for their trees is not necessarily the amount they were promised. The one-page timber contract they sign means little to anyone unfamiliar with logging, said Glover (telephone interview; 17 October, 1996). Landowners rarely understand what will be cut, how it will be cut, and how it *should* be cut for ecological sustainability. And, too, they often anticipate an overestimated return (Howard Fix, personal interview, 16 October 1996). Contractors are known to overestimate the tonnage and, therefore, the landowner's return — and, when they're done, furnish a cheque for barely more than half of the original estimate. Or, in order to reach the original appraisal, they overcut, taking more trees than they initially declared necessary and more than is ecologically sustainable.

No regulations restrict the behaviour of timber contractors. And few regulations restrict their timber practices[5]. They offer estimates they can't always reach, and espouse timber practices they don't always follow. For example, selective logging sounds great — but some timber contractors have practiced their own definition such as selecting all of the white spruce. Moreover, unfettered by restrictions, they operate their machinery in all seasons, not just in winter when logging least damages the boreal forest. As well, they clear land in ecologically sensitive areas: along streams and the Tawatinaw River, for example, and on the Tawatinaw Valley's steep, unstable, and erodable slopes. In the Tawatinaw Valley at Two Creeks where the historic MacDonald Stopping Place once stood, spruce was cleared in the fall of 1996. In the Tawatinaw Valley, near the Tawatinaw River, and across from Peaceful Pines cemetery, a jack pine stand was clearcut in the spring of 1994.

The Petroleum Industry Degrades the Landscape

Petroleum activities also play a hand in transforming the Rochester landscape. It was not until the 1960s that residents saw Rochester's first gas wells. The oil boom bypassed the community then, but gas activity escalates today, even in the Tawatinaw Valley. Indeed, although the Valley has received Athabasca County Council's designation of "the Tawatinaw Heritage Corridor" and — based upon Alberta Forestry, Lands and Wildlife recommendation — "critical wildlife habitat," the Tawatinaw Valley receives virtually no county or provincial protection.

In the valley and across the region, seismic lines and some gas pipelines criss-cross the landscape, with trees knocked down and the forest fragmented. A look across the province reveals Rochester is not alone: more than 220,000 kilometres of pipeline (Alberta Environmental Centre 1995a) crisscross the landscape. By 1982, it was reported that gas and oil activities had resulted in the loss of a million acres of Alberta forests over a 40-year-period (Pratt and Urquhart 1994, 47).

What's more, however, petroleum activities release substances into the air, surface water, ground water, and soil. They have been associated with ozone, for example, that has been linked to such health problems as asthma and to the poisoning of trees and crops. They have been associated with dioxins, furans, PCBs, heavy metals, and radioactivity as well — that have been linked to cancer, deformities, immune system difficulties, and reproductive disorders. To be sure, there are reports (e.g. Alberta Environment Centre 1995a; 1995b) that the petroleum industry is associated with numerous problems.

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[5] Only three major legislative acts regulate timber cutting on private land: the Water Act, the Federal Fisheries Act, and the Soil Conservation Act (Ken Glover, 18 October 1996, telephone conversation). Rarely do these apply to land being logged.

More specifically, at Rochester the petroleum industry brings gas wells that contain sweet gas with its reported associated toxins and sour gas with its associated colourless and deadly hydrogen sulfide. It brings flare stacks through which unwanted gases are burned, batteries that separate produced fluids, line heaters that maintain the raw petroleum at temperature high enough to be piped to processing facilities, compressors that help transport petroleum by propelling it through pipelines, waste and storage pits that store oil-based muds, brine pits that hold produced waters, and gas processing plants that process raw sweet and sour well gas into marketable products (Alberta Environmental Centre 1995a).

Reports (see Alberta Environmental Centre 1995a; 1995b) indicate that petroleum activities can generate pollutants of varying toxicity. For example, flares can emit some two hundred chemical compounds, including more than 30 varieties of cancer-causing benzene, none that are measured or monitored by the government. Compressors emit nitrogen dioxide, constituting "one of the major sources of NO_2 [nitrogen dioxide] in Alberta (Alberta Environmental Centre 1995a, 7)." Nitrogen dioxide irritates the lungs, can cause bronchitis and pneumonia, and increases vulnerability to such viral infections as influenza. Furthermore, sour-gas processing plants emit — among other pollutants — sulfur dioxide, which is linked to coughs, asthma, bronchitis, and emphysema and can combine with water vapor to form acid rain. In brief, the Executive Summary of the Alberta Cattle Commission Report noted (Alberta Environmental Centre 1995b 6):

> The primary sources of environmental contamination include spills and leaks of crude oil condensates, pipeline ruptures, blowouts of oil and gas wells, flaring of gases during the exploration and production of oil and gas, improper disposal of oil field produced waters, disposal of drilling fluids, and potentially natural gas and crude oil leakage from improperly sealed or abandoned wells. Contaminants can also enter fresh water aquifers through fractures, faulty bottom seals, broken surface casings and ground water flow.

That health problems are linked to the petroleum industry comes as no surprise to some Albertans living near gas activity: for years, residents have reported illness among children and livestock. In 1996, for example, Caroline, Alberta residents living downwind from a sour gas plant reported fatigue, nausea, respiratory problems, stiff joints, memory loss, headaches, and asthma. Furthermore, a study looking at cattle as monitors of environmental health reported that cattle exposed to a 1994 pipeline leak exhibited, among other things, tumours, respiratory tracts lesions, central nervous system problems, mucous membrane irritation, abnormal sexual behaviour, decreased bonding of cows with newborn calves, and failure of calves to thrive. Health concerns range beyond animals and people living near gas activity, however. Even eating cattle raised near gas operations may expose a person to high concentrations of bioaccumulated toxins like PCBs, cadmium, and mercury (Alberta Executive Summary 1995a).

But the petroleum industry pays Rochester landowners for their troubles. Holding surface rights to the land above which petroleum companies hold mineral rights, Rochester residents are offered "enticement" to allow industry entry and activity. According to Renaissance Energy Ltd.'s Vice President of Exploration Daniel Topolinsky, his corporation generally pays landowners from $1,200 to about

$2,400 per mile for seismic activity access, a price that includes restoring fences and tilling compacted soil. It generally pays $1,000 to $1,500 an acre for pipe line access, disturbing about six acres per mile in the process. And it generally pays anywhere from $4,000 to $6,000 for access to drill a well, and from $2,000 to $3,000 for the annual rental on the well's three-acre site. Although farmers won't get rich from gas companies drilling a pipe line on their land, they do get quick and easy cash.

Interestingly, however, Rochester landowners receive seismic offers lower than Topolinsky's figures and lower than the $1,000 per mile that Canadian Natural Resources Limited's Dahl Dow reported (telephone interview, 19 November 1996). They've been offered just $800 per mile, they say. Neither Topolinsky nor Renaissance Energy's Manager of Surface Land John Winton seemed surprised. Compensation figures vary, they explained, depending on many factors including land value, politics, timeline, negotiator experience, and the farmer's negotiating ability among others (Daniel Topolinsky, telephone interview, 18 November 1996; Jim Winton, telephone interview, 19 November 1996).

Rochester landowners not only may be accepting low compensation figures but, it appears, they may be signing damaging clauses as well. The Alberta Surface Rights Federation 1995 (6) explained,

> We now hear of rental reviews resulting in lower payments for older well sites; of oil companies inserting clauses in lease agreements that could pass environmental, reclamation and other liabilities to landowners; of inserting clauses that commit the landowner to reduced rental payments when a well stops producing but the site is still not reclaimed.

Moreover, farmers often are left cleaning up well sites, paying municipal taxes on well sites now assessed industrial, and coping with invasive weeds brought in with reclamation gravel as well (Alberta Surface Rights Federation 1995). The petroleum industry is not held responsible for ecological damage and contamination.

The Mining Industry Strips the Tawatinaw Valley

In addition to ecological problems generated by the agricultural, timber, and petroleum industries, there are those created by the mining industry as well. Like the timber industry, the mining industry has a history in Rochester of small local enterprises. "Quite a few men worked at the sandpit here. They shipped a lot of sand out of here in the early days," an old-timer explained. Today, however, mining includes large corporations as well as local operations, all of which strip-mine sand and gravel from the Tawatinaw Valley.

That sand and gravel is used throughout Athabasca County in road construction and maintenance, building construction, and landscaping (County Administrative Officer Jim Woodward, personal interview, 1 August 1995). Most that is mined by Lafarge Canada Inc., for example, goes into the area's highway paving, county-road graveling, street sanding, and concrete. Although Lafarge has virtually depleted its own sand and gravel reserves in the valley, it excavates other reserves, paying landowners $.30 per yard for pure sand and $.60 per yard for gravel (Frank Shepel, telephone interview, 19 November 1996). Recently, for example, it strip-mined private land adjacent to the Stony Creek Stopping Place on the Landing Trail, just south of Rochester in the Municipal District of Westlock. Historic buildings were removed in the process, Stony Creek was diverted, and what had been an aspen hillside was "reclaimed" — as cattle pasture. To be sure, provincial and county land reclamation requirements stress land-use and capability, not ecological integrity.

Municipal Development Disregards Ecological Needs

All in all, the Rochester community sees the export of raw materials, jobs, and money. It sees the depletion and degradation of the natural world during the first steps of production. As Broad and Cavanagh noted in their discussion of third-world plunder (1993 24), the pressing ecological problems facing Rochester are not "the air and water pollution and waste-disposal problems that most city dwellers and most Western environmentalists think of." They are not the assimilation and disposal of waste that occurs at the final steps of production. Rather, the ecological problems facing Rochester encompass the immediate threat to the land as living space. It is degradation of the land upon which the livelihoods, lives, and futures of Rochester residents depend — the land that sustains them physically, economically, emotionally, and spiritually.

Amid the industrial development is municipal development and zoning. In downtown Rochester, the Tawatinaw River follows a relatively new channel — one that was carved by machinery when the province built the new bridge, explained Athabasca County Councilor Joe Gerlach in a 23 November 1996 telephone interview. Much of the bush surrounding the river has been cleared, and some of that land is routinely mowed. Where wetlands are zoned "residential" by county land-use bylaws (County of Athabasca No. 12 1992), a number of hectares are slated for sale .

A kilometre upstream, the land and river bank are zoned "urban reserve" — a catch-all designation for land-use not yet allocated. There, land just west of the river is zoned "industrial." Even farther upstream in what Athabasca County has designated "critical wildlife habitat," the "Tawatinaw Heritage Corridor," and a "rural use area" too, people are building acreage homes on a river-front subdivision. Not only have some landowners clearcut to the shoreline, but another has built where the Rochester Landfill once existed, on top of years of accumulated and unmonitored garbage. Meanwhile, the new Rochester landfill in the jack pines along the Landing Trail buries trash that was, until recently, burned in open pits. It also provides a recycling service to local residents.

Conservation Attempts Exist

Although example after example of ecological degradation can be found, there are places within the Rochester region that do receive ecological protection. Armstrong Lake Natural Area is one of them. Lying within two political districts — the County of Athabasca and the County of Westlock — Armstrong Lake Natural Area comprises 900 hectares of boreal forest wetlands and uplands. It contains the tiny Bulloque Creek as well. Called "Phantom River" by pioneer Vi Burrell, this little creek flows as a river in the springtime. It is for this reason that residents call Armstrong Lake Natural Area the "Phantom River Natural Area."

Phantom River Natural Area is in fact a candidate natural area under Alberta's Special Places Program, a program aiming to find and protect representative samples of Alberta's diverse landscape. As a candidate natural area, Phantom River's future is uncertain: will it pass from a candidate natural area to full-fledged natural area? If so, what level of protection will it receive? For, in Alberta, ecological "protection" is a nebulous concept. Intent on balancing "environmental responsibilities with economic realities (Lund 1995)," Alberta's Special Places Program allocates different kinds of "protected areas" and, so, different kinds of protection, from full protection to essentially no protection that allows grazing, recreation, tourism, oil and gas activity, and even timber cutting.

The Rochester Wildlife-Habitat Management Area is a different kind of protected area. Weakly protected by Alberta Fish and Wildlife "protective notations," it requires Alberta Fish and Wildlife consultation before development. It is land that Fish and Wildlife considers valuable as wildlife habitat and important for hunting, non-motorized recreational use, and nonconsumptive wildlife opportunities. Originally, however, it was a research study area, established in 1961 for long-term wildlife ecology studies based out of the Rochester Wildlife Research Centre. Since then, it has shrunk steadily. Devoured by grazing leases, and fragmented by gas exploration and a new highway, it exists in Rochester's far eastern reaches, comprising 299 quarter-sections of primarily wetlands (Hugh Wollis, personal conversation, 18 October 1996).

While both Phantom River Natural Area and the Rochester Wildlife-Habitat Management Area entail public lands, there are private lands, too, that receive special attention. There are landowners placing private land in the Alberta Conservation Association's "Buck for Wildlife" program, signing a contractual agreement to conserve wildlife habitat. There are landowners placing new provincial "conservation easements" on their land, intending to protect it in perpetuity. And there is Ducks Unlimited Canada overseeing private wetlands near Tiperary Lake, managing water levels to maximize water fowl and wildlife productivity. Not long ago, that organization purchased approximately three quarter-sections adjacent to Dapp Lake as well. Some of this land will be flooded to replace drained wetlands, while the remainder will be managed as wildlife habitat (John Martin, letter to the authour, 25 October 1996).

Furthermore, some county measures exist to protect the region's ecology. Along a short distance of Armstrong Lake shoreline, for example, there is an eight- to nine-metre county-designated "environmental reserve." As part of the tiny Armstrong Lake subdivision, it was established to "provide adequate waterfowl and fish habitat, and lake access (General Municipal Plan 1992, 20)." Environmental reserves provide as strict and enduring protection as anything in county legislation, said County Administrative Officer Jim Woodward (telephone interview; 22 November 1996). Additionally, along the shoreline of the Tawatinaw Lake subdivision, there is a roughly 30-metre to 45-metre "recreational reserve," similar to but less stringent than an environmental reserve.

Few Environmental Laws Exist

These measures aside, few laws — county, provincial, or federal — and undoubtedly little political will protect the region's ecological integrity. Certainly, however, the Athabasca County General Municipal Plan (1992) identifies the Tawatinaw Valley, the land adjacent to the Tawatinaw River, and the Athabasca Landing Trail as the "Tawatinaw Heritage Corridor." With this, it intends to "promote identification and conservation of the County's archaeological, cultural and historic heritage (General Municipal Plan 1992, 24)." What's more, the General Municipal Plan identifies the Tawatinaw Valley as "critical wintering range for moose and deer" and Armstrong Lake, Dapp Lake, Tiperary Lake, and a northeastern unnamed lake as "critical waterfowl habitat." With this, it intends "to guide land use and development in a manner which protects and complements as much as possible, the critical wildlife habitat areas within the county (General Municipal Plan 1992, 22)." But — when push comes to shove — these gestures are weak. For, ultimately, the General Municipal Plan is merely a policy "document that has no teeth (Jim Woodward, telephone interview, 18 November 1996)."

Another policy document is the Big Bend Plan. It encompasses 1,850 square kilometres in north central Alberta, with southeastern boundaries that reach into the Phantom River Natural Area (Alberta Energy and Natural Resources 1985). Vague, impotent, and industry-oriented, it fails to seriously consider ecological integrity, instead emphasizing the needs of the agricultural industry primarily and the petroleum and timber industries as well. Indeed, it acknowledges that lands of particular wildlife or environmental sensitivity do exist — but it fails to identify or protect them. Its wildlife management efforts centre on adaptable ungulates, address furbearers "to ensure continuation of the trapping industry insofar as it is compatible with agricultural use of the area," and recognize a great-blue heron population north-east of the Rochester region. Recommendations bear no legal status and supersede no legislated mandates of any agency.

Meanwhile, what few environmental laws do exist are a conundrum to Rochester residents — rarely known, poorly understood, and seldom enforced. To be sure, there are essentially no enforcement officials to patrol for violations and certainly few residents who file complaints. As a result, violations persist.

So it is. This, then, is the concrete reality of Rochester residents. In short, it is a saga of change. What change next takes place will be dictated both by outside pressures — social pressures and ecological forces — and by internal choices. Because those choices depend upon resident's perspectives as well as residents' reality, this dissertation now turns to the viewpoints of Rochester community members.

PART TWO

From Perspectives the Future Forms

PART TWO

> Soil erosion is in essence human erosion. One cannot be solved without the other.
>
> J. L. Hypes
> *Social Implications of Soil Erosion*

An understanding of a community requires not just an understanding of its past and an understanding of its geology, ecology, and social world today. It requires an understanding of the perspectives of the people who inhabit the community. It is residents' perspectives plus the facts of the world they inhabit that together form the concrete reality that drives both individual and collective choices. They provide the foundation of community well-being.

For this reason, this PhD dissertation now moves from a description of the geological, ecological, and social facts of the Rochester world to an exploration of the perspectives that residents hold. More specifically, this dissertation now turns to community members' views and experiences. Part Two examines the results of focus-group interviews that probed Rochester-community strengths and weaknesses. It reports the categories of responses that interviews aroused and, then, it presents an interpretation and discussion of the themes that emerged.

8

RESIDENTS VOICE PERSPECTIVES

This study investigated the facts and residents' perspectives of the small rural community of Rochester, Alberta. Together, these facts and perspectives form the concrete reality of Rochester community members and, thus, the basis for their choices regarding Rochester's future. Having chronicled the geological, ecological and sociological "facts" of the community in Part One, I now turn to the residents' perspectives in Part Two.

As Chapter 2 Research Design and Methodology reported, I employed focus-group interviews to hear residents' perspectives and thematic content analysis to analyze their perspectives. These are techniques particularly well-suited to the exploration of community views and have long precedence in social science research. What resulted I now report in the following chapters. More specifically, focus-group responses were open-coded, and open codes were categorized into 59 coding frames that, in turn, were condensed into 19 categories, each category containing a number and range of perspectives. Chapter 8 describes these categories, and Chapter 9 describes the themes emerging from them .

Content Analysis Revealed Clusters of Interest

Focus-group interviews revolved around a set of questions that asked essentially, What are the strengths and weaknesses of the Rochester community? The following nineteen categories resulted. They are discussed in the pages that follow.

- the place
- the land
- financial stress
- opportunities, activities, and services
- central proximity
- daily stress
- community life
- backstabbing and loose talk
- face-to-face interaction
- awareness
- active involvement
- family
- young people
- new people
- organizations
- communities within the community
- outside social forces
- local industry
- the forecast

The Place

The data revealed the category I call "the place." Within this category lies the perspective of Rochester as a home place — a place to which people are rooted, a place that holds them and, should they leave, a place that draws them back. Also within this category is the perspective of Rochester as a special place.

Rochester is a Special Place

To be more concrete, focus-group members referred to the Rochester community as a specific and bound space — a place. It is a place to live, to stay, to leave, to return, they said. It is a place to which they moved or stayed for many reasons: to buy cheap land, to live cheaply, to work in nearby towns, to live away from the city, to live off of the land, to farm the land, to enjoy a healthy natural lifestyle, to enjoy a safe neighbourly lifestyle, and to live among friends and family. "We're lucky to have ended up here." "We love it!" "We really love it," many focus-group participants said. Rochester it a "wonderful place" to raise a family, they said; Rochester is a "special place." Indeed, said participants, Rochester is a place where lives have been forged and memories have been made, a place that children, grandchildren and great-grandchildren continue to cherish. "It will always be a special place for them, whether we're going to be there or not," an elderly person said.

Rochester is a Place to Build Roots

Moreover, Rochester is a place where people put down roots. People establish something and build on that, participants explained, and "it becomes difficult to move — that becomes your ROOT." Said one senior citizen"

> We've taken roots out on the farm and they're pretty hard to pull out. I know we've got to move out of here one of these days, but as long as we can look after ourselves and are able to drive...

Said another senior, "I'm satisfied with staying here as long as I can. I raised my family here." Other participants concurred: "I'm not leaving this place." "I'm going to stay as long as I can." "I'll stay as long as I can." "Here for life." "Why move now?" "Want to stay." "Come back in twenty years — we'll all be here!"

Rochester is a Home Place

Thus rooted, many focus-group members considered the community their home. "After all these years, [it's] my home now," one person remarked. "This has always been home," another participant said, while others declared Rochester "the closest thing to home" and "a place to build a home."

Rochester is a Place to Belong

Tied closely to this sense of home was a sense of belonging — or what participants simply called "the feeling." "It's a family feeling," "a closeness," they said. "It's sort of like an extended family up to a point, like brothers and sisters in a sense." This feeling is what draws people back after they've been away, said some focus-group members. "They're probably looking for what it was . . . 'the feeling' . . . . They're looking for that in their life that they don't find somewhere else perhaps." Or maybe they're returning to "their childhood memories" or to "their happy memories," others suggested. Why ever they return, they do often return:

> Anybody that has lived here is always drawn back for some reason. There's something about the district, whether it's the FRIENDSHIP, whether it's the ASSOCIATION OF FAMILIES, or whatever it is. But I know of people that have lived here many years ago and they've gone out of

> their way SO FAR to come back to see Rochester. From the States. From different parts of Canada where they moved away to. And they ask for many of the old-timers. And it draws them back. Now, I don't know what it is but it seems that ANYBODY that has ever lived here always has a feeling that draws them back.

The Land

In addition to the category "the place" was the category I called "the land." Focus-group responses revealed a number of perspectives concerning "the land" of the Rochester community. More specifically, there were the perspectives of the land as
- sustenance.
- the basis for industries.
- an external force.
- a healthy environment.
- the foundation of a sustainable community.
- an intricate ecosystem, including a range of perspectives about its care.
- Nature.
- scenery.

The Land Is Sustenance

The land as sustenance was a perspective voiced particularly loudly by Rochester senior citizens or "seniors." Because they and many other focus-group members were farmers or ancestors of farmers, they knew a dependence on the land. It provided them a future. For example, one participant told of his father homesteading in 1912: "He comes here to this country from Poland. There was no land there and no future prospects there, so he comes here." Moreover, the land warmed and sheltered families — "Cut firewood to keep warm. Little loggin' here and there." — and it fed families. All in all, said participants, the land sustained families, addressing basic needs.

The Land Is a Basis for Industries

It also addressed economic needs. In addition to the perspective of the land as sustenance was the perspective of the land as the basis for industries, as sustenance at an economic level. Focus-group participants referred to the land as the foundation of the agriculture, timber, and mining industries and as the foundation of real-estate development and tourism. Regarding the land as the foundation of the agricultural industry, they said that Rochester has some "premium" soil. Regarding the land as the foundation of the timber industry, they said that Rochester has "plentiful" spruce. Regarding land as the foundation of tourism, a participant noted that "the valley is the RESOURCE that we have." Regarding land as the foundation for heavy industry, however, a participant remarked:

> I don't see BIG economic moves with industry because I don't know what industry would want to locate here — because I don't know what we would have to offer any type of industry.

The Land Is an External Force

In line with this economic perspective was that of the land as an adversary:

> It's our old friend Mother Nature that can come and wipe you out in a half hour. The last two or three years even, a lot of people have lost a lot: the crops have failed and, last year, people didn't even get their hay off — and that was Mother Nature.

A worthy opponent, the land is to be conquered, cleared, and cleaned up. This perspective was expressed latently when a person remarked;

> My husband had taken up a homestead here and little did I know! There were all kinds of TREES here. NOTHING BUT BUSH — but, anyway, it turned out all right."

It was expressed manifestly as well when another participant suggested cottagers might "beautify" the valley and yet another said, "We've flown over this thing . . . . There's trees falling over and it's just A MESS."

The Land Is a Healthy Environment

In addition to the land supporting both economic and basic needs, there was the perspective of the land as a healthy environment. "It's a healthy place to live. The water is clean. The air is clean. I think if you lose that health, what do you have? Nothing, you know.," said one focus-group member. Another noted that her father moved to Rochester specifically because it was a healthy place to live:

> Rochester was the best place for my dad's asthma. It seemed to help him the most. He tried B.C — different climates, different areas — but it just wasn't good. He just went to different spots in Alberta and different places in B.C. and he found that this agreed. He found that this was the best for him.

The Land Is a Foundation Of a Sustainable Community

A perspective of the land as the foundation of a sustainable community was voiced too:

> We're talking about green [industry] here? . . . . Well, that's it — that's what the forest IS. It's the underpinning of the whole thing. I mean, there was a forest here before there was agriculture. Although I'm very happy that we have a good agricultural community here, I think that if the forest aspect of it was mismanaged, everything else would go down the tube, too.

This was an economic and an ecological perspective, a viewpoint that considered a healthy economy dependent upon a healthy ecology.

The Land Is an Intricate Ecosystem

Indeed, a perspective of the land as an intricate ecosystem was expressed and described as well. Warned one focus-group participant:

> The valley has been selected by fires and everything else; you take that away and we're going to lose something here. We're going to lose it and it's not going to come back.

"Trees have always fallen over — THAT'S what trees grow in," said another. In fact, in the same breath that focus-group members voiced a perspective of ecological integrity, they voiced concern for land stewardship. "We're losing bush here and there. There's seismic lines going everywhere. The land's deteriorating," one person said.

Such worries were not shared by all, however. For example, one focus-group member contended that farmers inherently care for their land. Most people are "respecting and looking after" their land, he said, "protective of their property because THAT'S where its value is." Moreover, another person contended that housing developments "clean up" the forest:

> If you allow a development [in the valley] — not a commercial development but a residential development — people tend to plant beautiful trees around there. And their little tiny units per se look gorgeous.

The Land Is Nature

What's more, focus-group participants presented yet another perspective: that of the land as Nature. They spoke of the natural surroundings that enveloped them and gave them pleasure. They appreciated "the solitude," "the quiet," "the sound of the wind through the trees," they said, describing the Tawatinaw Valley, in particular, as "precious," "natural," "unspoiled," "wild," "a touch of wilderness," "to protect" and "to preserve."

The Land Is Scenery

Finally, focus-group participants spoke of the land as scenery. Consequently, an aesthetic perspective emerged alongside the ecological and economic perspectives. To be sure, the scenery drew acclaim. "The valley," in particular, drew spontaneous and enthusiastic comment with such words as "very nice," "pretty," "the best," "gorgeous," "most beautiful," "unique," "incredible," and "wonderful," and such phrases as "Christmas-card-like," "in all seasons of the year," "at all times of the year," "a huge asset," and "to preserve for future generations." Sometimes no words could be found. Consider one exchange:

> Participant 1: This valley is just so... Every time I drive down the hill, I just... It's so beautiful!
> Participant 2: It seduces EVERYBODY.
> Participant 3: Mhm!
> Participant 4: Yeah. I do that , too — still. You drive down that hill and it's like WOOW. Especially IN THE SPRING.
> Participant 5: Or in the fall
> Participant 6: OR IN THE FALL.
> Participant 5: The fall is beautiful!
> Participant 1: Yeh.
> Participant 6: In the fall when the leaves turn.
> Participant 7: When the leaves are turning, yeh!
> Participant 5: It's just the best place!

Along with the land of the Rochester community, focus-group participants addressed the economy of the community, their perspectives falling into the category I call "financial stress." They spoke of their concerns regarding the family farm, revealing perspectives of bitterness toward limited government assistance and apprehension about the corporate-farming trend. They spoke of concern for surviving town-businesses, revealing a wide range in perspectives toward local support of town businesses. And, finally, they spoke of concern about personal finances.

Family Farms Endure Economic Problems

More specifically, they spoke of the financial crisis facing family farms. They voiced the perspective that farm-families face economic problems, noting that some are "one paycheque away from bankruptcy." To make ends meet, many farmers — both husbands and wives — work off-farm seasonally or throughout the year. Said one participant:

> I work off farm. I would actually be making a pretty good dollar if I didn't farm. But every free minute I have, every free dollar I have, I pour back into that money pit.

So financially onerous is farming that it was said one Rochester farmer jokes that to pass on the family farm is to punish his child. Beneath the laughter, however, lay the frustration of persons saying they felt unsupported if not impeded by an unconcerned and nonresponsive government. "I guess I'm a little embittered, but I think we're nothing but serfs right now," a focus-group member said. "How much was said about agriculture in this recent election. TELL me SOMETHING they said about agriculture. NOTHING!" another declared.

Meanwhile, they noted that "megafarming" has come to Rochester. As farmers struggle, family farms grow larger — and as family farms grow larger, farmers struggle. Said one focus-group member:

> We farm a thousand acres. Eight quarters: we own three and the others are rented. That's not enough. And we're TRYING to get into cattle because grain is just NOT enough to keep a farm going.

Bigger volume, bigger equipment, fewer people, marginal returns. As a result, participants said, few farm-jobs exist, prompting young people to move to the city. And, some said, fertilizers and sprays are "overused" and bush is cleared, generating "slow deterioration" of the countryside. "Megafarms do not honour the land or the profession," one participant observed.

At the same time that family farms are growing larger, absentee landowners are taking over Rochester farms. Focus-group participants described how corporate-minded outsiders buy up farmland and, thus, undermine the traditional "associations between neighbours." They also described how corporations monopolize and, thus, control markets.

Town Businesses Are Dying

Just as family farms struggle, so town businesses struggle. "You can't make a living in owning a business in Rochester," said a relative of someone who tried. Accordingly, focus-group participants voiced concern about the future of town businesses — about the lack of local support for town businesses. Said one participant:

> Someday, down the road, I don't know what we're going to do if our local businesses can't make a go of it. We won't have Main Street anymore. That leaves us with no town as far as I'm concerned.

No town businesses, no town, no community. Participants described surviving businesses in both economic and social terms, explaining that businesses generate and circulate money in the community, provide quick and easy services, furnish a business perspective to community thinking, and provide gathering places for community interaction. "That's what brings people into the town yet . . . . If there were just houses here, there would be not much to come for," one focus-group member remarked.

But a flip side to "support local business regardless of cost" was advanced. Simply put, the flip side is the cost. Explained one person:

> It is very expensive to buy at the local store and to rent skis. It is cheaper to buy groceries in Westlock so that's where we go. It is too expensive for a family of four to rent skis, so we don't.

Personal Economics Are a Problem

Concern for the economic well-being of farms and town businesses was joined by concern for personal economics. Focus-group members spoke of high overhead and growing frustration. "You've got to have a LOT of dollars to end up with a LITTLE BIT of dollars," said one. Perhaps farmers should deinvest in agriculture and put their money in the bank, proposed another. A contrasting perspective emerged, however: that which held that the cost of living in Rochester is "still relatively cheap . . . compared to other areas," and, thus, reason that some people move to the community.

It's not just today's cost of living but yesterday's bills that concerned participants, however. Discussion revealed that financial scars from "the eighties" remain. A "tough time" and a "harsh time," the eighties were described as a time of easy money, oversizing, large debts, soaring interest rates, and lost farms, all "dictated by outside influences." Focus-group members said they are recuperating still. Admitted one, for example, "Some of us might still be even paying off debts from the eighties." And, with "no industry to provide jobs" in the Rochester community, few jobs were seen to be in sight.

Opportunities, Activities, and Services

Focus-group data revealed another and related category — "opportunities, activities, and services." Within it are the perspectives that Rochester has "limited" employment and leisure opportunities and that Rochester needs "meaningful and affordable opportunities and services." Also included is the viewpoint that Rochester provides young people sports opportunities — and a range of perspectives toward the role that sports play in a "vibrant" community.

Limited Local Opportunities Exist

To be more specific, what participants said was that "no industry" in the community combined with "fast cars" and "paved roads" means residents work away and move away: for "where the jobs are, they [the young people and the new people] have to go." Furthermore, no leisure activities means residents play away: for where "their interests" are, people do go. Additionally, no services means seniors move away: for where housing, stores, and yard help exist, seniors do go. All in all, focus-group members expressed the perspective that limited opportunities result in a commuting population, a travelling population, and a small population.

Some opportunities do exist, however. According to one senior citizen, there are the traditional town gathering spots and weekly activities:

> You can go to the curling rink. You can go to the coffee shop. You can go to the store. You can play cards, bingo, anything you want . . . . Play the videos.

According to other participants, there is outdoor recreation in the Tawatinaw Valley — cross-country ski trails, walking trails, horseback riding trails, and benefit rides. And sports are "coming back." A proud Rochester tradition, competitive sports were remembered with tales of a 1930 basketball win, neighbourhood softball, outdoor hockey tournaments, and, most recently, "television coming out to ROCHESTER" to cover the winning Rochester School girl's volleyball team.

Sports Provide Some Local Opportunities

That sports played an important role in past community well-being went unrefuted among focus-group members — sports was said to foster interaction and "consistent participation" and to boost community spirit. That sports could again play as significant a role produced a range of opinion, however. On one hand, some participants said that baseball, curling, hockey offer those traditional gains:

> I think we really have to focus on recreation and things that people in the community can participate in — where people can come together and spectate, watch the children participate in sporting activities and different things, and just [get] the opportunity to VISIT a little bit.

On the other hand, some participants said that sports alone are of limited value. Formal sports like hockey, for example, are "expensive and time-consuming," and competitions are far away: "It's outside the district and we don't see those games." Meanwhile, school sports — while valuable — are insufficient. "So many of our young kids [both boys and girls] are in sports, but there is nothing much here for them," said one. "Other than sports, there aren't many opportunities! What can children expect after grade nine here?" asked another.

What Local Opportunities Are Needed?

So how can the community provide its residents more opportunities? It's not just about sports and jobs, focus-group members observed — it's about providing "meaningful" opportunities to work and to play at Rochester; it's about providing a "reason to stay." "It isn't just to stay to live but to stay to DO things," a person noted. Furthermore, they said, its about providing opportunities to do things together, in the evenings, during the weekends, and on holidays. It's about providing recreation and entertainment that draws people from the community into town and that attracts "outsiders" into the community.

"Recreation that wouldn't cost anything would of course be the ultimate," said one focus-group member. "Anything promoting local employment opportunities would be desirable," said another. More events, some festivals, a fair with "activities for all ages," a "play group for pre-schoolers and moms and dads to socialize," a museum to "celebrate" and "preserve" Rochester's history, a local-music venue, a teen centre, a senior's lodge, a ball diamond, recreation facilities, a rail-line-turned-nature-trail, and a golf course all were ideas suggested by focus-group members. What about a "Central Park" in the heart of Rochester, with a gazebo, open-air music, some arts, and a theatre-in-the-half-round? proposed one participant — a "meeting place" or "a social centre" with trees, walkways for the elderly, trails for hiking, biking, skiing, and jogging, nature trails, benches, and picnic tables, agreed others. It was an idea of sorts that many residents have contemplated for years.

Central Proximity

Linked intricately to "limited opportunities, activities, and services" is the category I named "central proximity." It contains the perspectives that Rochester is "centrally located between major towns" and that Rochester is "a nice distance from Edmonton" — as well as a wide range of perspectives about Rochester's "convenient" location. It contains the perspective, too, that the city is an unsavoury place: in spite of the benefits the city offers, focus-group members held it in low regard.

Rochester is Located Near Business Centres

Located just 30 minutes from Rochester lie the business centres or "farm cities" (Zimmerman and Moneo 1971) of Westlock and Athabasca, supplying affordable and otherwise unavailable opportunities to Rochester residents. For this reason, proximity was viewed both positively and negatively. On one hand, participants said, Rochester's central proximity provides reason for its survival: its accessibility to opportunities and services is a drawing card. One person explained, "For those who want bowling alleys, golf courses, and whatever, we're half an hour away on paved highway in just about any direction. Everything is within 30 minutes." On the other hand, said participants, Rochester's central proximity provides reason for its demise: "It's just too easy to go 30 miles one way or the other — so, we'll never build up anymore, I think."

Rochester's Location is a Mixed Blessing

How specifically does Rochester's central proximity prevent its rebuilding? Participants described three ways. First, business centres "cripple" potential economic opportunities, providing the services, activities, and opportunities that Rochester does not and, so, satisfying needs and niches that a local entrepreneur otherwise might fulfill. Second, business centres cripple existing economic opportunities, taking transactions from local businesses and money away from community circulation. Third, business centres reduce local face-to-face interaction, luring inhabitants out of the community, young and old inhabitants, daily and permanently. Out of the community and, thus, removed from daily interaction means participants have less time, energy, and incentive to participate in community activities. Focus-group participants spoke of being less "handy" these days to help their neighbours and less available to contribute to the community. Out of the community and, thus, removed from interaction means, too, that participants feel "fragmented" both as individuals and as a community. At an individual level, one person said that "there are things that you'd LIKE to do in Rochester, but to commit to them you can't because you're not going to be there necessarily when people require you to be." At the community level, others noted that there are the farming community and the commuting community. To be sure, said one participant, "driving back and forth every day, I don't feel part of the community totally."

Not only was proximity to Westlock and Athabasca viewed with mixed emotion, but proximity to Edmonton was viewed so as well. On the positive side, "the city" provides. Barely an hour's drive from Rochester, it was viewed as a "nice distance" away, accessible, and able to provide what Rochester does not — jobs, recreation, entertainment, services, "glitz," and "excitement." Thus, the city furnishes "attractive" opportunities. On the negative side, however, the city takes. More precisely, it was viewed as taking people and business from the community: "Some people hit the big city two or three times a week," some people commute daily, and some move to Edmonton. It was viewed, too, as taking the rural lifestyle out of Rochester, bringing new people, commuting people, and crime.

Daily Stress

Yet another category was distilled from focus-group data: "daily stress." Enthusiastic and spontaneous conversation surrounded conversation regarding daily stress. The perspectives emerged that people are busy, stressed out, and, therefore, little able to contribute to the community.

Daily Stress Abounds

"It's just the general rat on the treadmill," a participant said. Going everywhere, doing everything, wanting more — "you always want more" — people are busy, focus-group members said. They are "busy making a living," busy "trying to make a go of it," busy "doing more," "too busy with unimportant things."

The result? "We're tired." "You're just dyin'!" "We're stressed out." Focus-group members said there is stress in trying to earn a living. There is stress in trying to keep the farm. There is stress in working far from the family, and stress in "raising children as single mums." There is stress in ensuring that children are prepared for the modern world — and stress in paying for preparatory lessons and services. There is stress in watching the land "deteriorate." There is stress in having to cope with "the talk." With time divided between the outside world and Rochester, there is stress in failing to attend all community functions — and stress in feeling like a partial, not a "full," community member. What's more, participants said, women face a stress of their own: There is stress in trying to "break out of traditional roles," in "trying to meet visions and raise kids," in trying to "juggle two lives."

All in all, there is stress in being "so involved with your own life," a participant explained — in striving to meet individual needs. Said one focus-group member:

> We have to meet this person. We've got to talk to that person. And that guy doesn't want to cooperate. And you come home at, like you're saying, six o'clock and you just don't feel like going out there for part of the night and DOING something. And I think THAT is the STRESS of the modern-day pace.

"That's right," agreed another, "and, then, I've got a six-year-old and a husband who works away."

Community involvement, thus, was seen as the ultimate stress. "I think I would fall apart if, on top of working full-time, I was involved with the community," explained one participant. For others who attempt such involvement, it is seen as "a STRAIN." Consequently, suggested one person, perhaps the community could provide some psychological support.

Community Life

Another category distilled out of focus-group data was "community life." This category entails the perspective that the family-farm lifestyle is a good and revered lifestyle, but no longer necessarily a part of community life. It contains the perspective that community life entails — among other things — safety, trust, friendliness, neighbour support, a sense of belonging, a lack of privacy, and special people. Furthermore, it contains a range in perspectives regarding friendliness, neighbour support, safety, trust, and sense of belonging in the community today versus yesterday.

The Family-Farm Lifestyle is Revered

It was with reverence that focus-group members described the family-farm lifestyle, using phrases like "a hard life," "a simple life," "the good life," and "a beautiful lifestyle." The family farm is the strength of the Rochester community, said some participants. It is the reason that people work so hard to keep their farms afloat, said many. One person explained:

> THAT'S why we do it! That's why people have been going out and BUSTING their gut on drill rigs and driving bus and doing what he's doing

> and doing what I'm doing, driving into the city every day and so on . . .They value it very greatly.

But the family farm lifestyle no longer is necessarily the community lifestyle:

> It has occurred to me that one can be dedicated to the [family farm] life style without being dedicated to the community. Where years ago it was a total package — the community was a part of the life style — the current economic situation has forced farmers into being mobile, finding work off the farm, which, in turn, is taking away the community.

The Community Lifestyle Entails Safety and Trust

In contrast to the reverence with which participants discussed the family farm lifestyle was the enthusiasm and pride used to describe community life. Many participants hailed the safety, the trust, the friendliness, the support, the sense of belonging, and the people themselves. Regarding safety, for example, a focus-group participant said:

> It's a place where you can leave your keys in the car and not worry about it being stolen; the high crime rate here is somebody burning doughnuts at the stop sign.

Regarding trust, another person said:

> When I go from home, I very seldom lock the door. When I go to bed, I forget half the time to lock the doors.

Frequent comparisons with high city-crime rates instigated nods a agreement and murmurs of approval. Occasional comparisons with the past, however, produced comments about declining safety and trust:

> I think strangers just aren't trusted anymore because so many horrible things happen with murders and abductions and what not. So, there's a real paranoia.

Nevertheless, the safety and trust that does exist provides reason to stay as long as possible, declared many senior citizens.

The Community Lifestyle Entails Friendliness

Friendliness, too, was an attribute acclaimed — among a range of perspectives, however. While, on one hand, there was the view that Rochester is no friendlier than any other community, on the other hand, there was the perspective that Rochester is and always has been a "pretty friendly" and even a "very friendly" community. With enthusiasm, participants described the flavour of community contact: "It's about the only community you see that you drive down the road and people say, 'Hey!'" Absolutely! said many participants — be it at the store, in the cafe, or on the street, people stop to say hello. Remarked one person:

> I know if you go into the post office, you better make sure you've got an extra ten minutes 'cuz if someone's there, you end up talking and pretty soon half an hour's gone by. And you just went to pick up your mail!

The Community Lifestyle Entails a Sense of Belonging

Along with the topic of friendliness was the topic of belonging — the "feeling" described earlier. When inhabitants drop into the cafe, for example

> it doesn't matter for how long or what you're doing . . . there's always people in there that just say, 'Oh, come sit with us!'

As with safety and trust, however, much has been lost, noted some long-time residents including seniors.

The Community Lifestyle Entails Special People

What's more, there was the topic of the people themselves. What's good about the Rochester community? "IT'S THE PEOPLE!" "It's the people." "I like the people," said focus-group members. There is a "different type of people" in Rochester, participants explained — people who have strong values, beliefs, personalities, and talents; "unique people;" "very interesting people;" "characters." Participants expressed an appreciation for these people. They said they valued their honesty and generosity, their "independent spirit," their "pioneering attitude," and their self-supporting know-how, they appreciated their advice, help, and resolve — that "they get behind their ideas." Moreover, they said, they appreciated the common interests and the friendships that they share with other Rochester residents. "We have better friends here in this community that we ever had," one focus-group member remarked.

The Community Lifestyle Entails (Some Degree of) Support

To this list of Rochester's appreciated attributes — safety, trust, friendliness, the sense of belonging, and the people — participants added neighbour support. Neighbour support constitutes what seniors called "neighbour association" or "helping your neighbour and having your neighbour help you." Before the time of large machinery, improved transportation, and improved communication, association between neighbours was intrinsic to rural life, seniors explained. But, now, they said, much is lost — there is less neighbour interaction, less neighbourhood support, less community interaction, less community cohesion, and less of the community "feeling." So be it, the younger participants said, they liked what they experience: "It's the neighbours. Just people looking after each other and helping out, and I really appreciate that. Again, that support network."

Although some participants suggested that family — not neighbours — today compose the core of community association, it was agreed that whatever community support does exist is an important Rochester strength, "making it easier for everyone" in this modern-day world.

> "For example," one person explained, "I go almost every day to the cafe to have a coffee, to have a conversation with somebody because my wife just passed away a month ago. And I can walk in the cafe and I see a bunch of people. And I would say hello to every last one of them because IT'S A LITTLE COMMUNITY. And those people RESPOND. So, I would do it AGAIN. And it helps."

Certainly other participants agreed. "People look out for each other" and "people care about each other," they said. Thus a perspective of community support existed.

Community Support Has Dwindled

At the same time, however, another perspective of community support existed. It was the perspective that support exists within limits: Rochester community members can count on each other within limits. Said one focus-group member:

> Whereas in the old days, you had to get along, now only in times of real need can you phone someone — like if the cows are out and in the ditch. But on a day-to-day basis, I wouldn't expect it.

Moreover, others noted, past prejudices simmer, competition and envy exist, and backstabbing and talk results. Explained one person:.

> I've discovered that if it APPEARS that somebody is doing better than you, you might even go out of your way JUST TO MAKE SURE that you keep him down there.

The Community Lifestyle Entails a Lack of Privacy

Indeed, all is not rosy within community life at Rochester, said focus-group participants. A lack of privacy permeates the Rochester way of life — an aspect of the community that elicited spontaneous conversation. Explained one focus-group member, "You're under a microscope in a little town . . . . Everyone is an expert in the other person's business." Take one focus-group exchange, for example:

Participant 1: I'm __. I've lived there approximately twenty years. I'm a housewife.
Participant 2: You're a farmer.
Participant 1: Farmer.
Participant 3: That's right.
Participant 1: And drive bus — part-time. That's about it.
Participant 4: I'm __. I've been here forty years. I'm a farmer. I've diversified into music and the logging business a bit too now.
Participant 1: Photography?
Participant 4: Photography. That's right. Yeah.
Participant 3: Photography. Right. Yeah.
Participant 5: Jees — everybody else knows more about them than they do!

Backstabbing and Loose Talk

Taken to the extreme, lack of privacy results in the category labelled "backstabbing and the talk." Focus-group discussion addressed what participants called backstabbing and the talk in the Rochester community. Participants held the perspectives that backstabbing and loose talk is intrinsic to small-town life, is best ignored, and is destructive. Furthermore, they said, there are reasons why people "talk."

Backstabbing Is an Uncomfortable Topic

Backstabbing and loose talk instigated loud, enthusiastic, and spontaneous focus-group discussion as well as veiled comments and hesitant whispers. Participants laughed at it, suggested ways to cope with it, and offered reasons for it. And, therewith, they declared it a serious problem.

Initially, the topic of backstabbing and the talk instigated laughter. Participants laughed it off and shrugged it off. It is intrinsic to small-town life, they said:

> Participant 1: That's small town though.
> Participant 2: That's been here for ages.
> Participant 3: EVERYWHERE

"That's human nature," they explained. "People talk, right?" "You know, they always talk." "You get that anywhere — it's nature."

People Gossip For Many Reasons

What drives backstabbing and loose talk? Boredom, said focus-group members. It's a form of entertainment, some laughed. Competition and envy, participants said, noting, "It appears that if you perceive the local businessman to be doing well — ESPECIALLY if he buys a new half-ton —that's not permitted." "THAT gets people talking!" a person replied. In sum, participants said that backstabbing and loose talk is based on hearsay, judgments, labels, misinformation, prejudices, insecurity, intimidation, fear, and personal negativity. From their point of view, it is a way "to comfort our frustrations," a way of explaining, a way of rationalizing, a way of coping, and a way of maintaining control.

Backstabbing Is Best Ignored

Why ever it exists, however, backstabbing and loose talk is best unheard or at least ignored, a number of persons advised. "If you're going to exist in a small town, you have to be oblivious to the things that are said about you. And the higher profile you are, the more you have to be oblivious," a participant said. Others agreed. Said one, "The way I look at it, if somebody's talking about me, I DON'T CARE. I say, if he wants to talk about me, he's leaving somebody else alone."

Backstabbing Hurts the Community

Then, having shared philosophies, focus-group participants addressed the problems that backstabbing and loose talk creates. It really *is* destructive at both a personal and community level, they said, sustaining prejudices, fostering intimidation, eroding trust, breeding hostility, reducing interaction, and — all in all — undermining community cooperation and cohesion. It wounds individuals and fragments the community:

> When we first moved here, everybody told me this person is ne-ne-ne-ne-ne and this person is ne-ne-ne-ne-ne. Well, I thought right away, 'This is ridiculous — I'm going to make my OWN judgments on everybody.' And I've done that, and I know that people sometimes think, 'Oh, you like that person?'

Furthermore, backstabbing and loose talk spawns restrictive labels that community members can't look or work beyond: "The next time you say hello, you have an opinion — and you can't look PAST that opinion." It drives inhabitants away from town businesses and daily interaction: "That's why Dad quit dealing in the community — because he had a lot of land and there was just a dynamic that developed." And it drives residents out of the community: "Several new people have moved here, felt uncomfortable, and moved away again." In short, in the words of one focus-group participant, backstabbing and loose talk holds the community down.

Face-to-Face Interaction

Yet another category of data was that which I have labelled "face-to-face interaction." Within this category lie the perspectives that, in Rochester, the reasons and places to congregate have disappeared and that face-to-face interaction has declined and, in fact, is limited. Additionally, there is the perspective that cross-generation support is missing, important, and needed.

Face-to-Face Interaction Has Declined

More specifically, what focus-group members said was that community members are not "interacting as frequently or a closely." Their reasons and places to do so are gone, they said. And focus-group discussion addressed why.

Some participants blamed "fast cars" and "paved roads" that allow people to travel fast past their neighbours' yard, noting they "often see people from Rochester outside of Rochester." Some participants blamed the lack of local industry that forces inhabitants to work away and play away. Some participants blamed corporate-minded outsiders that buy up farmland and destroy neighbour associations. Some participants blamed school centralization that cut neighbour- and neighbourhood-contact, noting that the once-common activities linking school and community no longer exist. Some participants blamed the pace of modern-day living. Some participants blamed television. Some participants blamed the telephone. And some blamed it all: improved transportation, improved communication, centralization, and urbanization, all together. Some participants even blamed the loss of the train — for when the train stopped running, people stopped coming to town.

Seniors, particularly, looked to the days of the train as a time of ideal community interaction — and to the loss of the train as a mark of changing times. In short, just decades ago, the train truly was community interaction: Not only did it transport people and farm goods, but it constituted a community event, a reason and a place to gather. But, now, the train is gone, the track is pulled up, and neighbours don't visit much neighbours anymore, focus-group members said. Gone with the train are Sunday neighbour-visits, church picnics, school ball games, neighbourhood dances, and small card parties, seniors lamented. What remains, they said, is little "association" between neighbours and neighbourhoods, few community activities, and limited daily contact. In other words — in seniors' words — there is no "social life."

Little Cross-Generational Interaction Occurs

Focus-group discussion revealed that seniors themselves still retain some order of social life, however. The elderly described a strong community — their own community — to which they contribute cooperatively and frequently in some of the ways and, in some cases, with persons they've known all their lives. Rarely, however do they and younger people cross paths. Rarely do the generations "mix." For this reason — all ages of focus-group participants agreed — cross-generational contact is needed. It would benefit everyone involved as well as the community as a whole, they said. The following exchange illustrates how deeply interaction is appreciated:

Participant 1: "Now the one thing that the school does here that is a very EXCELLENT thing as far as the elderly are concerned: at the Drop-In here, there's one of the teachers that brings his class once a year to play CRIB with us. Now, the interaction there is wonderful. We always enjoy it very very much."
Participant 2: And they bring lunch — their mothers send lunch on that date!
Participant 3: They treat US, you see, on that one day.
Participant 1: In that, there IS interaction — between them REMEMBERING the elderly and being associated.

Communities within the Community

Communities within the Rochester community is another category that embraces focus-group topics. Within this category lie the perspectives that the Rochester community is a community "fragmented" into a number of communities and that communication between and information about each "community-within-the-community" is limited and needed.

The Rochester Community is Fragmented

Throughout discussion, focus-group participants referred to fragmentation of their community. Words like "fragmented," "separated," "certain people," "these people," "cliques," "separate little groups," "certain groups," "a close group," "this group," and "different kinds of communities" manifested this perspective. They referred to "the youth," "the new people," and "the seniors," for example. They referred to "the farming community and ALL those people that drive to town to go to work." They referred to "the bar: it has a crowd of its own." In cryptic comments, too, participants addressed fragmentation. For example, participants alluded to the Rochester School community with the comment, "We hardly know anyone in the school now, even though we've lived here ALL our lives." And they alluded to the Rochester Agriculture Society community with the remark, "They thought it would be easier to just do it themselves than to get other people involved."

An even more latent perspective of fragmentation arose, with participants considering the community in which they personally interact to be the Rochester community. For instance, the seniors said seniors are "the backbone of community" while, on the other hand, younger participants couldn't "blame seniors for not being motivated [to participate in the community]." Moreover, parents of Rochester school children — that is, members of the "school community"— declared Rochester School "the crux of the community," Rochester-business persons declared the town businesses the core, and Tawatinaw Valley inhabitants considered the Tawatinaw Valley the community's biggest asset. At the same time, sports enthusiasts pointed to sports activities as "the things that keep a community going." And a focus-group member who rarely participates in the Rochester community said, "It's dying . . . . Because I don't know a whole lot of new people in the community."

Limited Information Flows Between Communities-Within-the-Community

Indeed, participants noted, there isn't much flow of information between sub-communities. Awareness about the opportunities, activities, issues, and decisions of each community within the community is limited, they said. One focus-group member said:

> I know people who work in Athabasca that don't know ANYTHING about the school AT ALL. Or people at the school who don't know anything about the people that come to the drop in centre.

What's more, some younger participants were oblivious to the seniors' reality — to their volunteering efforts, their activities, their needs. And other participants were oblivious to Ag. Society goings-on:

> Maybe I'm ashamed to say this, but I know ABSOLUTELY NOTHING about the group that takes care of the bingo. I know NOTHING."

Limited Awareness Exists About the Rochester Community

"Awareness" in the Rochester community composes another category of interview topics. Focus-group participants voiced the perspective that community awareness is limited, be it regarding community affairs or community infrastructure. And they said awareness is important and should be improved.

It was apparent from focus-group discussion that a lack of community awareness exists. Little is known about communities within the community, and little is known about community services or infrastructure. Regarding the lack of public town-water, for example, participants held a range of perspectives concerning reasons, severity, impact, and attempted and potential solutions based upon personal experience, hearsay, and misinformation. A similar oblivion surrounded community decisionmaking and decisions. For example, said one focus-group member:

> What got me is when they took the cemetery over from the County . . . . They set out a sheet of paper of rules and regulations, [set by] just a dozen members on the committee and ADOPTED without letting a whole lot of general public [participation]. I never even knew it changed hands from the county to the Lion's Club until it was said and done.

Indeed, according to focus-group participants, no public information system exists to increase community awareness, and no process exists to encourage involvement and input in community decisionmaking and decisions. Likewise, no participant said they felt aware much less informed of decisions, issues, needs, services, operations, or activities in the community.

Instead — in spite of the Rochester School newsletter and a recent Rochester Agricultural Society questionnaire — they said they feel in the dark. They generally don't know about community affairs, have little meaningful "input" in community decisionmaking, and don't know about outside affairs from which they'd benefit or to which they "could give input." This they found disconcerting. It is important that residents "know what's happening," participants said. Explained one:

> I don't necessarily have to be involved in HELPING but I should have some idea of what you're doing, how you're getting along, if you need help.

Communication Channels Are Required

Hence what is needed is "more communication channels. "I think we need links between communities within communities," a participant said. Perhaps Rochester needs a public information system to rouse community interest as well as increase community awareness, suggested one person — something "not intimidating" that provides "real facts." Maybe another attempt at a community newsletter would be worthwhile, proposed another participant — something similar to the school newsletter that "just sort of keeps you in touch with what's happening [at the school]." The last community newspaper folded, however, due to a lack of interest, contributors, and volunteers.

Active Involvement

"Active involvement" composed yet another category of interview topics. Within it lie the perspectives that community involvement has declined over time for many reasons and that community involvement may be increasing today. Furthermore, it contains the perspectives that volunteers are critical to community, that only enthusiastic parents volunteer, and that too few near-elderly volunteer, especially in senior activities. Finally, it includes the viewpoint that — given a crisis —Rochester residents rally.

Using such words as "volunteer," "contribute," "participate," "being involved," and "getting out and making the effort," focus-group members described concerns that fall under the category I called "active involvement. Although they did not necessarily differentiate between volunteering and participation, for the sake of clarity, I do. Thus, volunteering means to give free service of one's own free will — it "comes from the heart — while participation means simply to take part in community events and activities, maybe merely to attend them. Focus-group discussion revealed a number of perspectives concerning both volunteering and participation: there has been a decline over time for many reasons, there seems to be a resurgence today, only enthusiastic parents volunteer, too few persons near retirement age volunteer. Everyone agreed wholeheartedly, however, that given a crisis, community involvement skyrockets.

Involvement Has Declined

Without a doubt, participants said, lack of volunteers is a problem. Just as community interaction and awareness have diminished, volunteering and participation have declined. Discussion revealed that community involvement is down from the days that seniors remembered, but perhaps higher as of late, up at recent sports activities and up in Rochester Agriculture Society membership. Whether for community events or for regional issues and decisions that concern community well-being, however, it is "a real struggle" to get people involved, said focus-group participants. Concern simmered among focus-group participants because, they said, "volunteers keep the community going." Without volunteers, "there wouldn't be anything done."

No volunteers, no community. There were further concerns regarding limited involvement that surfaced as well. For example, some participants complained that only "fired up" parents contribute. More precisely, enthusiastic parents contribute to activities pertinent to their child's well-being and back off when their child moves on, leaving people who "rode on their coat-tails" to fend for themselves and community involvement to "die off for a little while" — until the next set of enthusiastic parents "takes charge." It's a volunteer "cycle" and a convincing concept to some persons who noted that involvement is picking up again.

What's more, the seniors had concerns of their own. They complained that "very few of the [people] say sixty-five [years of age] patronize [senior activities at the drop-in centre] at all." They said they "don't see anybody taking it over for the future" and, as a result, they worry that few persons comprehend the limitations facing the elderly — what Rochester does not have and what Rochester needs. Although it is their concern today, they said, it will be a concern of the aging younger generation soon, for "their time is coming."

Limited Time and Energy Curtail Involvement

Why the decline in community involvement ? The modern-day lifestyle, said focus-group participants. They have no time: "There's "not enough time to DO anything anymore;" "You just don't have time like a person used to;" "There just isn't time to do the things you'd like to do." And, further, they have no energy:

> By the time I'm finished working, I'm tired and I don't want to go out. I don't socialize much with my neighbours. I might go downtown and have a cup of coffee and talk to all my friends and neighbours, but I don't do too much else anymore.

In brief, focus-group participants seemed unable or unwilling to give the commitment that community involvement requires. They suggested, however, that the community "tap into a lot of the talent," experience, and time of the elderly. The exchange below further illustrates the problem:

Moderator: And if there were an Ag. Society meeting at night?
Participant 1: Forget it.
Participant 2: Forget it.
Participant 3: Just vegetate.
Participant 4: You just don't feel like it.
Participant 5: Yeh.
Participant 6: That's right.
Participant 7: Yeah, not usually.
Participant 4: Exactly.

Community Involvement Is Discouraging

There is more to it, however. Community involvement "is discouraging," requiring "stamina" as well as time and energy. In summary, focus-group members said the following: It is discouraging that there are always only the same few people willing to do all of the work. It is discouraging that there is rarely a request for help. It is discouraging that there is little support: "Not a single soul would contribute," said one person who had powered a community-based project she considered worthwhile. It is discouraging that there is "someone there to knock your contribution," "someone quick to criticize." In the words of one focus-group member:

> There are a FEW people that do a lot of work, and, then, sometimes those people become the centre of . . . criticism. If somebody starts something, rather than people saying, 'Okay, let's support this, let's get behind it,' somebody will say, 'Well, why are they having in on Tuesday? Why don't they have it Sunday morning?' And 'Why did they pick green shirts for that anyway?' You know. They can just wreck something within minutes — and REALLY discourage people.

Varying Degrees of Commitment Exist

There is more to it still, however: community involvement requires commitment. As was plain from the focus-group remarks, however, varying degrees of commitment exist. At one end of the spectrum was the comment:

> But don't forget how many hours YOU put in, how much time YOU were willing to put in. And myself. And everybody else. All those people who had their kids involved in that program, we were down there shoveling...scraping...painting."

At the other end of the spectrum was the remark from a commuter:

> They can close the school and shut down the community, but our farm will still be here. And I'll still be driving.

All said and done, however, should a crisis erupt, community members "will pull together," participants said. Focus-group members fervently agreed that in the face of disaster, Rochester community members "will pitch in." Community members "get behind" a person in trouble and "rally" behind a common goal. To send students to Ottawa, for instance, community members raised $10,000. Said one focus-group member:

> Ten thousand dollars in a little community like this was raised in a matter of a couple of months because people said that's worthwhile . . . . They place value on things and DO it.

Family

"Family" emerged as another category into which I clustered focus-group perspectives. This category contains perspectives expressed about the role the family plays in the Rochester community and personal lives. At both the community level and personal level, participants perceived the role of the family as important. At both levels, they perceived that the family provides support in this modern-day world.

The Changing Family Means a Changing Community

At the community level, seniors noted that the role of the family now overshadows the role of neighbours in significance. "It's more associated between FAMILIES now," said a senior commenting on community interaction. What's more, participants noted, changes in the structure and focus of the family have helped instigate changes in the Rochester community. According to proponents of the volunteer cycle, fewer children per family means fewer reasons to volunteer, while more attention per child means less time and energy for community involvement.

Family Provides Important Personal Support

At the personal level, focus-group participants said that the role of the family is particularly important amid the pace and stress they endure. "We all have our parents, our grandparents, and our local uncles and aunts," said one participant, describing the emotional and financial support that extended family provides. They provide affordable and worry-free "baby-sitting privileges," for example. So important is family to some participants that it was their primary reason for moving to the Rochester community, for coming home.

Family Connections are Community Connections

Added to discussion of the roles that the family plays at both the personal and community level was discussion of the role that family *connections* play. Family connections are community connections, participants said. Families are connected to families in Rochester, and, thus, individuals are connected to individuals. "Everybody is related to everybody, if you go far enough back," a participant said.

Perhaps this is the reason that some persons consider Rochester a friendly place, suggested some focus-group members — because, indeed, it is friendly and supportive when you have family. But if you don't have family, I cannot see where THIS community is friendlier . . . . This community . . . doesn't give me any more support than I could get someplace else because . . . I don't have family around." A dissenting perspective arose, however: "I don't have any family around but it's the neighbours, you know." Regardless of their stand, however, all participants agreed that family connections do facilitate a new person's assimilation into and acceptance by the community. "They gave us sort of a start," a participant agreed.

Young People

Some focus-group data fell into the category of "young people." Focus-group participants voiced the perspective that the world is different these days and, as a result, the young may be, too. They expressed a range in perspectives regarding the young — whether, in fact, the young are different and, if indeed they are, whether the change is for better or worse. They further noted that young people are leaving Rochester, and proposed reasons and philosophies for their departure as well as ideas to encourage their return. Finally, most participants acknowledged that some residents do return.

Youth Today Are Different

To be more concrete, if there was one thing focus-group members agreed upon it was that today's young people grow up in a far different world than that which their parents and grandparents knew. What just decades ago was inconceivable, now is "familiar" and "no risk" for the young, be it TV or an afternoon at Red's in West Edmonton Mall. As a result, "their perception of life is different; their perception of nature is different; their perception of economics is different." The young have "different values" and hold "different interests," said participants, although some questioned just how different.

Youth Leave the Community

These kids have cars, money, and "choices," said participants, and — so armed — "they're off," leaving Rochester in droves. Their exodus has focus-group members worried. Why do they go?

Limited opportunities, participants replied. They go because "family farms do not have a future," because they are "not prepared to make the sacrifices and to spend three-quarters-of-a-lifetime finally trying to put something together." They go because there is "nothing for them" in Rochester, no recreation, no entertainment, no jobs: "They can't WAIT to get out of town." They go for another reason as well, participants said, they go to "see the world." They go to "get a taste." It is a "natural thing," said participants, "Westlock kids want to go to Edmonton. Edmonton kids want to go to Vancouver. Vancouver kids go to L.A." Accordingly, said many focus-group members, Rochester's young people "need to get way" — they "have to LEAVE the community to appreciate what they HAVE in our community."

Youth Need Local Opportunities

So, let them go, said one participant, but bring them back. Provide something "to hold them to the community." Suggestions were offered. Build roots. Provide jobs. Provide business and learning opportunities. Provide entertainment and recreation opportunities that include "more than school sports." Provide a youth centre, a teen centre, a fun centre perhaps. And, importantly, said one participant, "change as they change." In summary, what focus-group members said was to provide the young people a reason to return:

> They need a stepping stone to WANT to come back to. If there's nothing to come back to, then they just continue going.

Some Youth Return To Live

Certainly, some young people do come back, however. And when they return, they have a fresh appreciation for the Rochester community. "My daughter's class was held under gun point, and we decided to get out . . . . We just decided it was time to come back to my husband's roots and we really love it," said one focus-group member. "We were in the city when I got pregnant and it was TIME to move out here — I was not raising a child in the city. So we're here for life," said another, a returned resident who praised the "small-town values," the "beautiful" valley, and family support. Said yet another participant:

> I came back for a purpose. For twenty years, I've been driving back and I've watched Tawatinaw die. That town totally evaporated and my purpose is NOT to let it happen to Rochester.

New People

Still another category unfolded — the category I named "new people." This category embraces a range of perspectives, from the perspective that held new people as necessary and positive change to the perspective that held new people as necessary but negative change to the perspective that held new people as inevitable change and, thus, in need of screening. It was agreed, however, that if Rochester is to survive, new people are needed.

Rochester must "attract more people," declared many focus-group participants — "the population should increase SOMEWHAT to keep it alive." Population growth is vital to economic growth, they said, and, so, youth and young adults must stay or at least return, and new people must come "to stay." Accordingly, focus-group discussion addressed the important role that new people play in the Rochester community, revealing a range of perspectives toward their immigration. On one hand, new people are "critical to Rochester surviving or thriving;" on the other hand, new people bring change around which a number or viewpoints existed.

Newcomers Bring Positive Change

Some focus-group participants considered it a change for the better, "an injection of new blood." New people, they said, bear no past prejudices, harbour positive attitudes, and possess refreshing ideas. They bring experience, education, and a world-view that helps to illuminate Rochester's problems, needs, and solutions. Moreover, they bring enthusiasm, optimism, and energy to a flagging community spirit. A six-year resident explained:

> Maybe I appreciate the Rochester community more because I KNOW what we had in the city. I saw a lot more than probably most people have that have lived here forever.

Valued and valuable, new people should be welcomed, some focus-group members said. "It seems to take a lot of time to figure out various routines, events, and clubs in the area. A welcome wagon idea would be nice! "

Newcomers Bring Negative Change

On the flip side, however, some participants considered the change that new people bring a change for the worse — a destructive necessity. In short, they said new people bring new-fashioned ideas, urban attitudes, commuting lifestyles, and idealistic attitudes. What's more, newcomers bring city ways. "Crime is becoming more of a concern with the new people in town," one person wrote. All the while,

some participants said, working, shopping, and interacting elsewhere, the new people "contribute nothing to the community and they leave." Indeed, "come and go" was a common lament — and newcomers do leave, participants noted, after they go broke farming or need a job or want a home nearer work or decide to escape Rochester animosity. "They come in and stay maybe two or three years, and they move on somewhere ELSE."

Newcomers Should Be Filtered

Yet a third perspectives arose. Resigned to the change that new people bring, some participants wanted to screen it. They wanted to filter the inflow of newcomers. "See, we just want the RIGHT new people," a focus-group participant explained.

Newcomers Leave

With filtering comes negativity, however: loose talk, exclusion, and subtle intimidation. "I think a lot of people — especially newcomers that move into this community — I think they're perhaps a bit intimidated," one said. With negativity comes departure, too: "Several new people have moved here, felt uncomfortable, and moved away again."

Thus, the question arose from one participant, "From ALL the OLD people with ESTABLISHED families, do they really want a lot of new people moving in?" "No, I don't think they do," "I don't think they do," "Uh, no," "But they need new people to survive," "They do, yeah." "Yeah, but they don't really want them," came the replies. The new people are necessary and "welcomed" yet unwanted.

But perhaps their feeling intimidated or uncomfortable is not a function of community behaviour but of individual personality and viewpoint, suggested some participants. Perhaps it's not Rochester's fault but the newcomers' problem: "They either feel at home or they don't." Perhaps it just takes time to get to know community members, to gain the confidence of the people and the support:

> It's like being the new kid on the block. Like you just don't jump up there and be known the first day; you kind of work your way into society.

Organizations

Related to the category of "new people" was the category that I called "organizations." Around this category, lengthy conversation ensued. Two organizations were discussed. The first was Rochester School, a "welcome place" that focus-group members said has potential to draw new people to the community. The second was the Rochester District Agricultural Society, an umbrella organization with a reputation of being "intimidating." A range of perspectives revolved around the school — its importance in the community, its quality of administration, its quality of education. A range of perspectives revolved around the Ag. Society, too — its importance in the community, its community input, and its fair.

Extreme Viewpoints Surround Rochester School

Rochester School Is the Crux Of the Community

To many focus-group participants, Rochester School is a "comfortable" place. They spoke of it as a "small" and "friendly" place with a "family feeling," outspoken regard for "community-values" and "family values" including honesty, respect, cooperation, and self-esteem, and a passion and gift for sports and winning. Participants held a range of perspectives toward administration — from "competent" to "a regime" — and the general viewpoint that "parental support is outstanding." Some participants expressed appreciation for a student body that entails a community "background" — children who are "second-generation students" whose parents studied under current teachers, and children who are fourth- even fifth-generation community members whose great-grandparents built the first schools. In these ways, in many ways, the school and the community are intertwined, focus-group members explained.

For this reason, some participants said, the school and the community together compose a strength. For this reason, others said, the school *is* the community. The school is the "core," the "crux, "the big strength" of the community, "vital" and "essential" to the survival of the community — to be supported and to be saved. Without the school, "the community would die."

Rochester School Is Just Part Of the Community

To yet other focus-group members, however, this latter viewpoint was a "simplification;" Rochester school is just one component of the Rochester community. "The hotel would still do business. And there'd still be the store," argued one focus-group member." Whereas, at one time, the school and community indeed were one, now they are separate, they said. "It's only the parents that know about it [school activities]," said one participant. "We hardly know anybody in the school now, even though we've lived here all our lives," said another.

Rochester School Can Be Improved

Not only was the role of the school in the community addressed but, so, too, was the quality of education of the school. Viewpoints ranged from "excellent" to "needs improvement" to "a nightmare I want to FORGET." While praise was enthusiastic and spontaneous, criticism was furnished with a sense of hesitancy: "I've got my opinions on the school, but that would open a can of words, eh?" referring to a previous school issue that inflamed community conflict.

During focus-group discussion, it was suggested that school eradicate "destructive cliques" and back off on sports and winning. It was suggested that the school open its doors to community members, "integrating residents into programs to enrich existing classes," providing classrooms, the computer lab, and the gym for extra-curricular adult and children activities, and offering "adult education in the evening." In short, said one focus-group member, the school must "grow and change with the needs of the community."

Extreme Viewpoints Surround the Rochester Agricultural Society

The Rochester Agricultural Society Is Important to the Community

Also addressed by focus-group participants was the Rochester District Agriculture Society. Like the school, the Ag. Society had its fans. Some participants hailed it as an "important" and "strong" umbrella organization that "does everything that's necessary." It takes care of community needs and administers community money, overseeing small service groups, hosting the fair — a "good" fair to some and a "dismal" fair to others — holding bingos, and managing the hall. Ever since the Ag. Society was established, they said, "the project to be done is being done."

The Rochester Agricultural Society Is a Closed and Self-Serving Group

Others disagreed, however, calling the organization a "boy's club." In spite of recent membership drives, solicitation for community "input," young new members, and "potential," the Ag. Society remains a small and closely-knit group of people who "want to run the community," they said. More precisely, Ag. Society members don't solicit community input in decisionmaking. Or they do solicit community input, but they ignore community ideas. Or they don't solicit help, but they complain about lack of volunteers. Or they find volunteers, but they mistreat them. In other words, said a focus-group member:

> If you want to come in and do something, yeah, you're a great person. But, after that, well once we're done with you, well, we'll chew you and spit you out.

True, said many participants, the Ag. Society attitude is one of intimidation. One person explained:

> I remember the first time I ever went to an Ag. meeting, I thought, "GET ME OTTA HERE!" Like, I did NOT want to be there! I was ram-rodded. I was intimidated!

"Worst thing you could do is walk into there and say the wrong thing," another agreed.

Outside Social Forces

In addition to other topics of discussion that focus-group members expressed were those that fall into the category called "outside social forces," that is government, corporations and outside-owned industry. Focus-group participants viewed government suspiciously, corporations apprehensively, and outside-owned industry schizophrenically. They reported that government fails to acknowledge or address community and farming needs, corporations undermine community well-being, and outside-owned industry generates jobs and revenue but exploits community assets. A range of perspectives surrounded the topic of government regulations and heavy industry.

Government Ignores Rural Communities and Farmers

To be more specific, focus-group members accused government of placing family farms and rural communities "on the back burner." In brief, they said that as corporate farming expands and other industries grow important in the Canadian economy, government grows apathetic toward family farms and rural communities. It slights the members of the Rochester community, and — working to address its own interests, corporate investment, and the "global economy designed by corporations" — it sets the agenda of the Rochester community. It encourages residents to compete with each other, to specialize, and to leave the community for jobs nationwide. It discourages local investment, failing to effectively assist aspiring and present farmers and local businessmen. And, furthermore, it welcomes corporations with "endless money " to come and to stay. All in all, they said, be it federal, provincial or regional, government is "not concerned with community issues." A dissenting and hopeful perspective surfaced, however, when someone suggested municipal government might soon fund community activities and promotion.

Government Regulations Are Inept

Not only did focus-group members denounce government, but they criticized government regulations as well. For different reasons, they viewed government regulations as inept. From an economic perspective came the viewpoint that regulations are too numerous and too restrictive; from an ecological perspective came the viewpoint that regulations are too limited and too lenient.

More specifically, the sentiment arose that "regulation" is the "buzzword of the nineties." This was a viewpoint based upon economics, with some focus-group participants saying regulations are too numerous and too restrictive:

> It doesn't matter what department through the government or what level of government, everything has got to be a permit.

Regulations intimidate, discourage, and wear down potential investors, these people said — and, consequently, they drive business and industry away from Rochester:

> They've turned a lot of people off . . . . I mean there's got to be some kind of protection . . . but I think it's important to back down on some of the hoops we have to jump though.

Another viewpoint emerged as well, a viewpoint based upon ecological concern: regulations are too few and too lenient. Limited environmental regulations encourage land abuse, some participants said. Fertilizers and pesticides are "overused," gas and oil activity is "out of control," and logging is "out of hand." Accordingly, participants suggested "mandatory impact assessment of gas and oil activity," "mandatory impact assessment and reclamation of sand and gravel mining," "regional plans for sand and gravel mining," "selective logging only with follow-up management," and "community watchdog programs" all be implemented. Or maybe, a person wrote, establish "local control of industrial development."

Corporations Undermine Community Well-being

Closely tied to and intertwined with discussion of government were the topics of corporations and outside-industry, themselves interconnected in conversation. Focus-group participants condemned corporations. Using words like "take," "trash," "kill," "waste," "exploit," "third world," and "too far and too fast," they lambasted corporate exploitation of Rochester's natural, economic, and social assets.

Corporations Control the Local Economy

Number one, they said, corporations have taken control of the local economy. Quietly and somberly, they referred to the eighties, recounting how corporations and government together encouraged farm expansion until "SUDDENLY ZAPPO" Rochester farmers "who had been farming for decades and generations lost THEIR LAND. Furthermore, they added, they'd had no control over that issue: "And that was NOT their fault." "Now what control did they have over that?" and "We had no control over that," they said.

Additionally, participants referred to the economy today, describing how corporations provide increasingly expensive services upon which inhabitants now depend. Explained a participant:

> It comes down to everybody's hooked up to phone, power, vehicle insurance, everything. So your overhead is high — so you've got to generate so many dollars to keep going.

And, finally, participants mentioned how corporations with the media create attractive markets, convincing residents of all ages to "look this way and have this car and..."

Outside Ownership Usurps Local Control

Number two, participants said, corporations are marching onto Rochester family farms, taking control of farm markets and community well-being. Saying it "could be TOUGH" and "it's kind of scary," they explained that corporations create monopoly sellers and buyers — and, thus, control markets. Rochester farmers thus "are forced to deal with" these corporations.

Moreover, focus-group participants said that corporate-minded businessmen buy up land and determine who works the land — and, thus, control who works in the community, who lives in the community, and who interacts in the community. Accordingly, they said, increased outside ownership — both number and land base — leads to increased outside control and decreased community well-being. "Outside ownership of farms: that's what kills a district faster than anything," said a senior, explaining,

> "The trend is, right now, that some of the big businessmen in the city or wherever they're from, they buy up land that did belong to the old-timers and was passed down to their families. And, now, it's being bought up. And it's a different situation completely. They hire people to run cattle and all that sort of thing and to farm. And it takes the neighbour association out of it and helping your neighbour and having your neighbour help you. The land is owned by somebody not in the district. They don't CARE about the

> district. They're not putting anything INTO the district. All they're doing is taking out."

Corporations Degrade the Landscape

Number three, focus-group participants said, corporations are marching onto the Rochester countryside, "trashing" the ecosystem and scenery and taking local assets. "We've got multinational interest — large corporations — behind most of this [logging] that's going one. Timber's going to big saw mills; most of its going to the States and Japan probably," said a participant. In the view of some participants, corporations take trees, gas, gravel, and sand — and, thus, they take money. They even take history, participants sighed, having packed up or "wasted" the train track.

Outside-Owned Industry Is Important But Unwanted

So it was that conversation concerning corporations entailed conversation concerning outside-owned — often corporate-owned — industry. During focus-group discussion, mention of outside-owned industry produced a schizophrenic response. On one hand, participants praised the economic gains that industry generates; on the other hand, they criticized the social, ecological, and some said economic loss that industry produces.

Outside Owned Industry Provides Local Economic Gains

Regarding the economic gains that outside-owned industry generates, focus-group participants expressed appreciation for the jobs, the revenue, and the tax base. Without a major industry in the area, they explained, community members "have to go away to work" and "the County has got to take revenue off the backs of residents." They viewed industry as a power and nebulous entity: "Water has never stifled INDUSTRY. If industry wanted to start up, they'll find the water," for example. This perspective maintained that industry brings money to the community.

Heavy Industry Is Unacceptable

At the same time, however, participants recognized that outside-owned industry takes money from the community, circulating it afar. While participants valued the jobs that industry provides, they criticized the negative ramifications — the economic, ecological, aesthetic, and social problems that industry brings to their community. For example, they said, industry brings "smokestacks and big factories," an "influx of people," and pollutes and tears up the countryside. They vetoed "an industrial complex of any KIND."

It was with strong language that participants condemned an industrial future in Rochester. Said one focus-group member;

> My nightmare is industry in the valley. Smokestacks and all this other thing in the valley would absolutely make me CRAZY.

Said another

> That would be Rochester SHOT TO RIBBONS . . . . If we start going to the smoking stack thing that you drew up, well, I wouldn't even come into

> Rochester then. I'd stay out there on my quarter and thank God that I didn't have to come in here.

Extractive Industry Creates Community Problems

Heavy industry — "smoke stacks and factories" — was not the only outside-owned industry considered unacceptable by focus-group members. Extractive industry, too, was lambasted. On economic grounds, participants denounced timber sales to global markets: "Hate to see trees going to BC with marginal returns." On ecological and aesthetic grounds, they criticized sand- and gravel-mining, seismic activity of the petroleum industry, and timber practices:

> Please, no more! One of the most appealing features here is the lack of these kinds of activities.

Furthermore, a mistrust of the extractive industry surfaced. "People need to know the REAL FACTS about the oil and gas activity," wrote one participant. Said another:

> I MISTRUST the long-term direction of the forest industry here because I feel that if it becomes uneconomical to continue to exploit — that is EXTRACT — what's there now, I don't think the forestry industry would hesitate for a moment to pull out and leave a DAMN big mess here for all of us to clean up.

Local Industry

What arose was discussion of local opportunities — and a category called "local industry." Focus-group members presented the perspectives that Rochester's future requires the community to change with the times, that it increase economic self-sufficiency, and that it increase economic diversity. They expressed a range of perspectives concerning the economic feasibility of small local businesses, the value of tourism in Rochester's future, the ideal future for the Tawatinaw Valley and plans for the Tawatinaw Valley, and viewpoints of the town appearance.

Rochester Must Change With the Times

To be more specific, Rochester's future depends upon the ability of its inhabitants to adapt to and move with change — to "cash in on the future." Rochester's survival depends on the "entrepreneurial spirit" of community members. Said a focus-group member:

> People have to REthink the way they look at land. Farmers have to rethink too. People are going to have to generate their own economic success if the community is going to maintain."

Rochester Needs Economic Self-Sufficiency

All in all, participants agreed that Rochester needs "a little more economic self-sufficiency." There "HAS to be some economic diversification," said one focus-group member. During discussion, participants pondered how to get it. Farm diversification perhaps, growing "more diverse and more specialized crops." More local businesses perhaps: "I think the future here lies in SMALL business or cottage industry . . . . Cottage industries, I think, would thrive. " Certainly, a participant agreed — saying, "I'd rather buy furniture from ANYONE in the community than go give my money to the city. I'd like to keep my money HERE."

Perspectives about the feasibility of small businesses varied, however. While some participants claimed there is room for the likes of a laundromat, a theatre, a non-smoking coffee shop, a small restaurant with a warm atmosphere and good food, and a farmers market with healthy, locally grown foods, for example, other participants said they were "economically not feasible." Nevertheless, an industry catering to the elderly was deemed possible as baby boomers retire to Rochester, their incomes secure and needs growing. "We really need to look at what's there and build on that," a participant suggested. Real estate development of "the ravine" was contemplated, too — if "tasteful" — with "acreages and cottages." Town beautification and public town water were suggested prerequisites.

Green Industry Is Needed

Most enthusiasm surrounded the topic of "green industry" or "environmentally-friendly industry," however. According to proponents, green industry is "sustainable" industry. Green industry would "generate money" for the community and "circulate money" in the community. It would provide employment and leisure opportunities for "generations" while, at the same time, "protecting" the landscape. "Look at [our neighbour's] over there - their family has been logging that jackpine for forty-five years, two generations, and it's still standing," said one participant.

Green industry could entail "diversifying forestry" into long-term woodlot management, selective logging ("That doesn't mean selecting spruce."), and community saw-milling, for example. Green industry could entail creating an "agriforestry industry" that combines farming and forestry. Green industry could entail encouraging such outdoor recreation as cross-country skiing, walking, and horse-back riding while advocating "preservation" of Rochester scenery, ecology, and history. Green industry could entail tourism.

Tourism Provides Hope

Tourism — "ecotourism" — provided the beacon of hope to focus-group participants. "Tourism dollars are great!" exclaimed one. At the core of the optimism lay the Tawatinaw Valley. "I think the MAIN attraction of Rochester, the area itself, IS the beauty," a participant said. "Beautiful" and "accessible," the valley already attracts outdoor enthusiasts, many said. Remarked on person:

> People that visit here — in all seasons of the year — appreciate it [the valley] and respect it and come back to it. They always talk about it. They always talk about how comfortable they are at the Tawatinaw Hill and on the ski trail systems and doing the other things they do in the valley and with the people here in the town and so on.

Not everyone was so enthused, however. Caution was advised for a number of reasons. Concerned for the natural integrity, some focus-group members warned that, unless "value-driven first," tourism could corrode the very assets it sets out to preserve: "With tourism comes development." Concerned for the future of development, another participant warned that tourism's promotion of nature could divide rather than unite the community, fueling social and economic conflicts: "And then you might be right back to the same argument amongst the community." Advocating a practical viewpoint, yet another voice rang out: "Not everybody wants to come and look at the pretty view. There's got to be more."

The Forecast

The last category into which focus-group topics were clustered is "the forecast" for Rochester's future. This category contains the perspective that Rochester must change with the times as well as suggestions for doing so. It further includes the perspective that outside social forces dictate Rochester's future. Finally, this category contains comments concerning Rochester's future — the forecast for the community — revealing as great a range of perspectives as could ever be expected.

Rochester Must Take Charge

Rochester must shape its own future, said focus-group participants — it must adapt to change, and change. Explained one person:

> Change is inevitable. I think the community, if it is going to survive, it has to learn to move with that CHANGE. I don't know where that's going or how that's going to happen, but we can't sit here and say, 'Well, yeah, Rochester is a nice little community. We've got a barn dance at the hall every two months. And we have a harvest supper. And that makes Rochester special.'

Others agreed. The community must "change as our kids change," "change with the times," "change according to changing times," and "go with the times," participants said. And they offered tenets for doing so.

Tenets Provide A First Step in Community Development

In the compiled words of focus-group members:

> Start with a respect for the land and the people — and, then, you move from there. Take time to learn about the land. Have a vision. Talk about a vision and come up with a plan. Plan ahead. Do a plan for the community. Find a common goal. Get some common goals. Create a safe crisis: take [residents'] minds totally off of the downfall and hardship they might have had. Believe an individual can make a difference. Rethink. Rethink our values. Simplify our lifestyle. Be satisfied with a little less. Prioritize. Slow down. Start with ourselves. Learn. Communicate. Honour. Appreciate. Care. Respect. Respect ideas. Find out what other people want. Find out what the community wants. Get everybody's input. Match up those who need help with those who can help. Know what things are happening. Meet people. Talk. Break down barriers. Find a new way to cross paths. Be together. Work together. Help the community out. Help one another out. Be there. Do it your own different way. If you like something, you should be a part of it, if you don't care about it, don't tear it down. Get along. Cooperate. Join in. Contribute. Interact. Participate.

> Volunteer. Take the initiative. Encourage people who take the initiative. Encourage the volunteers. Encourage one another. Encourage. Enjoy. Enjoy what you can, ignore the rest. Be a little more positive. Focus on the positives. Welcome [newcomers]. Get the younger people interested. Get people involved "that don't have a lot to do in the community." Get more people involved. Get everybody involved. Get involved. Associate with everybody. Interact with the seniors more! Mix with the younger ones. Treat everybody the best they can be. Take people for what they are — find their goodness, and work together with those goodnesses. Lay down the hatchets. Drop the Hatfields and McCoys. Let bygones be bygones. Forget what I might have said ten years ago. Forgive, forget, and start from square one again. Live and let live. Mind your own business. Host an annual appreciation party. Celebrate. Don't die on us. Don't quit. Plan to stay. And — finally — just DO it!

Little Hope Exists

All very well, said some participants, "we can try" — but there's only so much a community can do. Instead, they said, Rochester's future lies in the hands of government, corporations, outside-owned industry, and Mother Nature. Remembering the farm crisis, one participant said:

> Regardless of how we feel and our good intentions . . . a lot of things that we would LIKE to do are destroyed or made impossible by circumstances that happen ZILLIONS of miles away from Rochester," said one participant

Moreover, said other participants, Rochester's problems are not Rochester's alone — they are universal. Another participant said:

> I don't think the community is facing any more challenges or any less than any other community. It's just a universal thing: small communities are dying; big communities are getting bigger.

A Dichotomy of Perspectives Exists

So it was that focus-group interviews revealed a dichotomy of perspectives surrounding the future of the Rochester community:

It's just a universal thing: small communities are dying.	*vs.*	[Tawatinaw] just totally evaporated and my purpose is NOT to let it happen to Rochester.
There is only so much a community can do to try and keep the community alive.	*vs.*	I just think we have to keep plugging away.
People have to want to come — how do we know what people want?	*vs.*	Build it and they will come.
We're on the edge here.	*vs.*	We're just finding our niche.

The big picture doesn't look good here — there's a fear.	*vs.*	I think things can happen.
There future doesn't seem to be there.	*vs.*	I think it's coming around.
It's dying.	*vs.*	It's making a change for the better.
Well, the place is too small for things to happen.	*vs.*	I think Rochester is being dragged into the present.
I don't see that anything can happen in the immediate future.	*vs.*	There's GOT to be an opportunity.
I'm very pessimistic.	*vs.*	I'm optimistic.

On one hand, some participants saw Rochester as a community without a future, a community in which only people with jobs outside or with money in hand will settle and survive. On the other hand, some participants viewed Rochester as Alberta's best kept secret, a community with the resources and talents to forge a future of its choice.

It was in this way that the perspectives of focus-group members began to unfold, both in context and range. In short, the clustering of focus-group data resulted in nineteen categories, each of which contained a number and a range of perspectives about the weaknesses and strengths of the Rochester community. These categories constituted a span of topics that involved the natural world, the economic world, and the social world of the Rochester community; the city versus the country; the past, present, and future.

Although all categories were clearly distinct, they were interrelated and interconnected nonetheless. Data presented holisticly during discussions of a topic as complex as community could not be compartmentalized into completely isolated boxes of information. What's more, patterns and linkages across categories surfaced. As a result, these categories provided not only insight into community perspectives but important information leading to the emergent themes described in Chapter 12.

Table 8.1 Categories, perspectives, and range in perspectives addressed in focus-group interviews

	PERSPECTIVES	RANGE IN PERSPECTIVE
The place	Rochester is a "home" place — a place to which people are "rooted," a place that holds them and, should they leave, a place that "draws them back." There is "a feeling" in Rochester, a sense of belonging to the place. Rochester is a "special place."	
The land	The land is sustenance. basis for industries. adversary. healthy environment. foundation of a sustainable community. intricate ecosystem. nature. scenery.	land stewardship • land is not cared for • land is "cared for" and "respected" natural land • requires "honour" and "respect" • requires human intervention and control
Financial stress	Family farms are struggling financially. Megafarms hurt community. Corporate farms hurt community. Town businesses are struggling financially. Town businesses are both financially and socially important to the community. Residents are struggling financially.	local-business support philosophy • "provide local support regardless of cost." • "too expensive" to provide local support cost of living • "expensive" • "relatively cheap"
Opportunities, activities & services	Few jobs exist. Few leisure activities exist. People must work, play, move away. Sports opportunities exist. Rochester needs affordable opportunities, activities, services.	sports (for both boys and girls) • important to community's future • valuable but not enough. • limited value: formal, expensive, time-consuming, out of Rochester
Central proximity	Rochester is located centrally between farm cities. Rochester is within close proximity to Edmonton.	proximity to major towns and city • benefits Rochester, providing jobs, affordable leisure and services • cripples Rochester, taking business opportunities, money, people, and increasing stress
Daily stress	People are busy addressing individual needs. People are "stressed out." "Modern-day pace" and stress limits community involvement.	pace of life • Fast and busy "modern-day pace" • "Rochester-time: where nothing moves too fast"

Community life	Family-farm lifestyle and community lifestyle no longer are necessarily a "total package." Family farm lifestyle is "good" and revered lifestyle. Community life includes safety. trust. friendliness. sense of belonging. "the people." lack of privacy. neighbour support. community support.	community life • important and valued • unimportant because no longer intrinsic to farming lifestyle safety in the community • a "safe" community • less safe today than in the past trust in the community • trusting people today • "a paranoia" today friendliness • especially "friendly" • not particularly friendly sense of belonging • strong • much has been lost over time neighbour support • "strong" • decreased over time community support • "strong" • exists within limits • limited compared to past support
Backstabbing & loose talk	It's intrinsic to small-town life. It's best ignored. It's destructive. People "talk" for many reasons.	
Face-to-face interaction	Reasons and places to gather have disappeared. Interaction has declined for many reasons, and is limited today. Seniors have own interacting group. Cross-generational interaction is missing, important, needed.	
Awareness	It's limited. It's important. It needs improvement.	lack of public town water • big problem • no problem
Active involvement	It has declined over time for many reasons: too little time, too tired, too discouraging, too little interest, too little community dedication. It may be increasing today. Volunteers are critical to community. Only enthusiastic parents volunteer. Too few near-elderly volunteer, esp. in senior activities. Ignite a crisis: people rally.	

The family	It has replaced neighbours as core of community interaction and support. It provides personal support. Rochester is a good place to raise a family. Many people are related in Rochester community.	Family connections • reason why some people view Rochester as friendly, supportive • Rochester is friendly, supportive regardless of family ties • help people assimilate.
Young people	Their values, interests, perspectives differ from parents, grand-parents. They leave Rochester because it has "nothing for them" and because they must see the world. Provide them a reason to stay, to return. Returning residents appreciate Rochester.	values, interests, perspectives differ from parents • vastly different • not so different values, interests, perspectives have changed over time • change for the better • change for the worse young people leave • need for them to stay. • need to go, but bring them back young people come back • they "don't come back" • they leave later, don't come back • "some come back"
New people	New people are necessary to Rochester's future. Power elite do not "really want" new people.	change that new people bring • for the better • for the worse community reception of new people • new people are to be "filtered" • new people are to be "welcomed" new people leave • due to community negativity • due to own personal issues

Organizations	Rochester School has a history in community. Rochester School has both supporters and critics. Despite its virtues, Rochester School could use improvement. Rochester Agricultural Society has both supporters and critics. Hesitation surrounded the discussion of negative aspects of both school and Ag. Society.	Rochester School • alone, is "core of community" • *with* community, is "a strength" • is only one part of community Rochester School administration • "competent" • "a regime" quality of education at the school • "excellent" • "needs improvement" • "a nightmare" Ag. Society as a community force • "strong" and "important" • "up and down" • "has potential" • not now, not ever: just a clique Ag. Society decisions and activities • attempting to get "input" • unconcerned about "input" Rochester Fair • "good • "dismal"
The Forecast	Rochester must change with the times. There are tenets basic to successful community development. Outside social forces impact Rochester's future. The future holds three prospects: die, stay the same, thrive.	individual priorities • "we always want more" • "simplify" soliciting government help • work with local government • be self-sufficient because government is non-responsive local control • necessary • impossible control of the future • in the hands of local residents • in the hands of outside influences the outlook • optimistic • pessimistic

9

UNDERLYING THEMES EMERGE

The preceding chapter reported the results of the initial phase of data-analysis. As I described in Chapter 2 Research Design and Methodology, focus-group data was open-coded, its 2,400 open codes grouped into 59 categories that, in turn, were condensed into 19 categories. Those 19 categories were described in detail in Chapter 8.

Across those categories were linkages, patterns, and linkages between patterns. From them — via intuition, insight, and creativity — four central themes emerged:
- Rural living provides an ideal quality of life.
- Reduced opportunity for social interaction within the community reduces community cohesion.
- The contemporary rural lifestyle provides little opportunity to build roots.
- Negative attitudes and behaviours impede community action.

Like the categories from which they emerged, these themes are interrelated. They sometimes embrace the same patterns and occasionally overlap in content — but they are distinct nevertheless. They are presented at length in this chapter. I describe each theme and the manifested patterns and latent perspectives entailed in its creation. And, then — before moving on to the next theme — I discuss that theme in relation to previous research.

Theme I Rural Living Provides an Ideal Quality of Life

Table 9.1 Manifested patterns and latent perspectives leading to Theme I

	MANIFESTED PATTERNS	LATENT PERSPECTIVES
THEME I Rural living provides an ideal quality of life.	1. Rochester is a "good place" to live. 2. The natural and pollution-free landscape is important to Rochester's quality of life, today and in the future. 3. Small-town living is important to Rochester's quality of life. 4. Family and friends are important to Rochester's quality of life.	1. appreciation for Rochester's way of life 2. pride in Rochester's way of life 3. anti-urban sentiment

[redacted]	**5.** Access to opportunities, supplies, and services at nearby centres is important to Rochester's quality of life.	**4.** pro-Rochester sentiment
	6. The inconvenience, hectic pace, fatigue, and stress of the commuting to nearby business centres are outweighed by the benefits of rural living.	**5.** rationalization of rural-community problems
	7. People move to Rochester for its quality of life, not employment.	**6.** concern for Rochester's quality of life
	8. Rochester's rural living is a carrot with which to entice outsiders.	
	9. Participants value Rochester's rural life for raising their families.	

Theme I Interpretation of Data

Rural living provides an ideal quality of life. This was the first theme that emerged from patterns across focus-group categories. Linking these patterns were six latent underlying perspectives — the first a perspective of appreciation for Rochester, the second a perspective of pride in Rochester, the third a perspective of anti-urbanism, the fourth a pro-Rochester sentiment, the fifth a quick rationalization of rural community problems, and the sixth a concern for Rochester quality of life.

Latent Perspectives

The perspective of appreciation, for example, manifested in such words as "appreciate," "value," "like," "love," "honour," and "respect." For example, one participant said, "I think a lot of people have to leave the community to appreciate what they have in our community. . . . I do appreciate this community." Said another participant, visitors "appreciate it [the valley] and respect it and come back to it." Moreover, other people said they "appreciate" neighbour support, "like" the people, and "love" the community. Furthermore, farmers "value" the family-farm lifestyle. Likewise, said seniors, they "enjoy" being remembered by Rochester-School students "very very much." The perspective of appreciation surfaced latently as well — for example, during focus-group conversation about the community's future. Warned one focus-group member, "[We mustn't] take it for granted." Noted another participant, future development must "honour" the land and the farming profession. Yet another person said that development "has to start with a respect the land and the people." Indeed, closely associated with appreciation was respect. Regarding the land, for instance, one person said the land is being respected; another person said it is not being respected; and yet other participants said it must be respected.

The second underlying latent perspective was pride. What's good about the community? "You name it, it's good!" To be sure, it was with pride that participants enthusiastically described the ice rink they built — "a PALACE" — and the cooperation that community hockey once involved. It was with pride that they described Rochester hosting "the last outdoor hockey tournament in probably the universe, outside of the Ukraine or China or someplace," Rochester children square-dancing for elderly at seniors' homes, and Rochester community members pitching in at church functions. Furthermore, it was pride that emerged when participants compared Rochester to places elsewhere. Rochester residents "rally" to raise money, for example — and "that just doesn't happen everywhere." As well, Rochester "is about the only community you see that you drive down the road and people say, 'Hey!'"

The third underlying latent perspective was anti-urbanism — negativity toward the city. Although it contains jobs, recreation, entertainment, supplies, services, and excitement, the city contains a host of problems as well. According to focus-group participants, for example, the city is an unfriendly place: "You drive out here and someone goes by in a car and you wave: it's just totally different from the city." It is cold place: "In the city, you could be DYING!" It is a superficial place: "West Edmonton Mall? Not a CHANCE! You wouldn't catch me DEAD in that place!" It is troubled place: "Her kids were getting into trouble [in the city]." And it is dangerous place: "You never know whether somebody's going to jump in there with a gun or somebody's going to abuse [your children] or who knows what." In other words, the city is a place to go to meet needs but a place to leave behind.

The fourth underlying perspective was comparison of Rochester with other communities: "It's not only Rochester," "No comparison!" "It's a common thing," and "That's small town." This comparison provided reassurance. Creating the impression that Rochester is an especially caring, cooperative, and cohesive community, it provided residents evidence that Rochester is a satisfactory — indeed an exemplary — community.

The fifth underlying latent perspective was the quick rationalization of rural-community problems. More precisely, major weaknesses were defended before they were criticized. For example, lack of privacy was explained initially as caring and neighbourly. And backstabbing and loose talk was rationalized initially as "human nature." Likewise, young people leave Rochester not for a better quality of life but for a different life, and new people leave Rochester for a more lucrative life. To be sure, focus-group participants were willing — at least initially in discussion — to overlook problems that their rural community includes.

Finally, the sixth underlying perspective was concern for "preserving" the rural quality of life. There was concern that an industrial complex and too many people would destroy their quality of life. There was concern that loose talk and subtle intimidation now undermine the quality of life, corporate control threatens the quality of life, and that the push for more and hectic daily pace corrode the rural quality of life. "We have to maintain the kind of relationship and background and all the environment — the whole schmear," summarized one focus-group member.

Manifested Patterns

So it was that appreciation for Rochester's way of life, pride in Rochester's way of life, anti-urban sentiment, pro-Rochester sentiment, rationalization of rural-community problems, and concern for Rochester quality of life all underlay the theme "rural living provides an ideal quality of life." Then, there were the clear and obvious patterns. The patterns revealed a perceived quality of life in the Rochester community that includes the land, small-town living, family and friends, and nearby opportunities.

Consider the land, for example. Across a number of categories — The Place, The Land, Outside Influences, Local Industry — the natural landscape was viewed as being important to the Rochester way of life. More specifically, the scenery, the "natural world," the "natural integrity," and the pollution-free countryside were seen to create a "healthy" and "satisfying" place to live. Economically, physically, nutritionally, and spiritually, the land was seen as helping to sustain the people, supplying the basis for farming, logging, and mining, for recreation, for gardening, providing clean air, spring water, wild plants and animals, beauty, and "tranquillity," and furnishing hands-on opportunities to learn about and understand the natural world. To live in this natural setting, people have moved to the Rochester community.

That the land is important to rural living was underlined further by discussions of the future. More specifically, discussions about Rochester's future entailed discussions about the land. Across the previously mentioned categories, a pattern arose, revealing that as integral as the land is to participants' lives today, so it is to the lives of "future generations." For this reason, development should observe the importance of the land, participants said. Certainly, their perspectives about how to do so ranged, but their bottom line did not: "smokestacks and big factories" would be unacceptable. An industrial complex would "[shoot] Rochester to ribbons," destroying the very reasons some residents moved to and live in the Rochester community and impelling some people to withdraw entirely from the community.

A second value considered important to Rochester's rural quality of life was small-town living. Pattern three revealed that participants viewed the rural community lifestyle as being important to Rochester's way of life. Just as people have moved to Rochester to live amid the rural countryside, they have moved to Rochester to live amid "small town values." Although the lifestyle and values were said to have depreciated as of late, frequent comparisons to the city highlighted an appreciation of traditional community interaction and support.

A third value considered important to Rochester's quality of life was the people — family and friends who provide caring, support and help, support as residents struggle to balance professional and personal lives. This was pattern four. A fifth value considered important to Rochester's quality of life was access to opportunities, supplies, and services. Although affordable and meaningful opportunities are not available *within* the community, they are available nearby. Consequently, Rochester's availability to Westlock, Athabasca, Thorhild, and Edmonton was a valued component of Rochester's way of life. These centres satisfy needs that Rochester does not, providing the economic means necessary to live in the rural community and social, cultural, recreational, and entertainment opportunities. Certainly, there is a cost associated with distance: there is the inconvenience, hectic pace, fatigue, and stress. But that is taken in stride, outweighed — at least initially — by the benefits of rural living, pattern seven. "But if you live here, you've got to pay the price," explained one participant discussing the commute.

On the other hand, however, there is the Rochester economy: clearly perceived as a problem. Rochester's economy apparently adds little to the rural quality of life. Albeit residents hailed town businesses as providing quick easy service and community gathering places and noted the cost of living and price of land is "relatively cheap" — but, in general, the weak local economy detracts rather than adds to Rochester's quality of life. In brief, people do not move to or stay in the community for its economy; rather, they come financially secure and maybe retired, or they come employed in nearby business centres and far-off places or seeking employment close by, pattern seven.

Local economy aside, those other mentioned assets — the land, small-town living, family and friends, and nearby opportunities — make for a quality of life that participants considered a carrot with which to entice newcomers. This was pattern eight. Across categories, focus-group members indicated that Rochester's quality of life makes for a "good life" for retiring and raising a family: pattern nine. "Young people are going to be retiring . . . . and I don't see why they would want to live anywhere OTHER than in a rural setting," said one participant. "I think the BIGGEST thing that this community has to offer is a good place to live and to raise children," remarked another participant. "Wouldn't raise my child anywhere else;" "A good place to raise the family;" "Good place to raise children;" "A quality of life for raising a family — I think that's the strongest feature that we have here," other people agreed. Indeed, as noted earlier, many residents have *actively* chosen Rochester as their residence, first contemplating where it is they wanted to live, then arriving on and moving to the Rochester community, and then coping with such drawbacks as busy schedules and stress.

Discussion of Theme I

Rural living provides an ideal quality of life: this was Theme I. Like rural and urban residents across North America and the world, Rochester residents want to believe that the rural idyll exists — and they take pains to ensure that it does so. Although their perspectives might in part be based on nostalgia and longing for a simpler life, their perspectives are also grounded in personal experience with the city, direct experience with the country, and comparison between the two.

As a result, regardless of any debate in the field of Rural Sociology today, Rochester residents *know* there is a difference between rural and urban living. And because of this difference they value rural living. What's more, they value *Rochester*-living, steadily comparing the well-being of their community with that of referent communities and — like rural-community residents elsewhere (Bell 1992; Bonner 1997; Jones 1995; Valentine 1997; Yerxa Research Inc. 1992) — using gemeinschaft qualities upon which to judge their community as "a good place to live" and to determine that "rural living provides an ideal quality of life."

This rural-urban distinction that Rochester residents perceive is reminiscent of that which classical theorist's presented. For example, Rochester residents perceive the dichotomy that Ferdinand Tonnies and Georg Simmel proposed, contrasting small-town living with urban living like Tonnies, and contrasting *rural* living with urban living like Simmel. And Rochester residents espouse the same value judgment that Tonnies and Louis Wirth implied, viewing small-town living as good and urban living as bad like Tonnies and considering the country a positive place and the city a negative place like Wirth.

What's more, the rural-urban differences that Rochester residents perceive fall in line with popular perception. First, like rural residents elsewhere — be it England (Bell 1992; Jones 1995), Germany (Modelmog 1998), the United States (Vidich and Bensman 1958), and Ontario (Rayside 1991) — Rochester residents do compare and contrast their community with the city. Second, like both rural and urban residents across North America (Bonner 1997; Korte 1983; Patton and Stabler 1979; Rayside 1991; Roper Organization 1992; Valentine 1997; Vidich and Bensman 1958; Willits and Luloff 1995; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992), Rochester residents believe rural living is different than and superior to urban living. Third, like rural-community residents across North America (Rayside 1991; Sim 1988), Rochester residents do harbour an ambiguous perception of the city: "It is "a mixture of envy, distaste, and sense of superiority," wrote Rayside (1991 21) — for, after all, the city does "offer some freedoms and choices . . . . occupational range, consumer choices, and openness . . . ."

And, fourth, like rural-community residents elsewhere (Bell 1992; Bonner 1997; Rayside 1991; Valentine 1997; Vidich and Bensman 1958), Rochester residents utilize specific methods of formulating and maintaining their pro-rural viewpoint. They contrast the country with the city — particularly the extremes; they use negative language in regards to the city; they speak enthusiastically and positively in regards to "community;" and they immediately deny negative aspects of rural community living. Indeed, in the vein of their rural counterparts as well as social theorists of the past, it is what they look at and what they do and do not want to see that they arrive at a rural-urban difference and a rural superiority.

Comparing for a Rochester Superiority

Not only do Rochester residents perceive a rural superiority, however, but they perceive a *Rochester* superiority. By comparing their community to other rural communities — particularly to those they perceive as badly or worse off — as well as to major cities, they establish Rochester to be a preferred community. Certainly, this tendency aligns with findings of other case studies (Rayside 1991; Vidich and Bensman 1958). For instance, in their classic study *Small Town in Mass Society* (1958), Vidich and Bensman found that Springdale residents compared their community with others to conclude there were "inherent differences between Springdale and all other places, particularly the nearby towns and big cities (30)." Springdale was a "preferred place."

In Social Psychology, this tendency to compare and contrast has been labelled "social comparison." According to the Social Psychology literature (see Taylor, Peplau, and Sears 1997; Baron and Byrne 1991; Forgas 1985), social comparison occurs regularly at the individual level (Festinger 1954), providing an important source of 1. truthful self-evaluation; 2. self-enhancement in which comparisons with persons worse off virtually guarantee a better self-image; and 3. self-improvement in which comparisons with persons better off lead to accurate assessment and, then, inspiration or learning from the master. It was at the *community* level, however, that social comparison emerged important in this study. Results of this study indicate that social comparison plays an important role in two of the above three categories: in 1. *community*-evaluation and 2. *community*-enhancement. This result is consistent with suggestions of Borich and Korsching (1990). That social comparison plays a role in category 3. *community* improvement, however, was not evident.

Lackey et al. (1987) also noted that social comparison at the community level is consistent with "social identity theory " (Borich and Korsching 1990) — or an us-versus-them perspective. According to social identity theory (Tajfel 1982), explained Taylor, Peplau, and Sears (1997 190), 1. individuals categorize the social world into ingroups and outgroups or "us versus them;" 2. individuals derive a sense of self-esteem from their social identity as members of the ingroup; and 3. individuals self-concepts are partly dependent on how they evaluate the ingroup relative to other groups. Extending this theory from in-groups/out-groups to in-communities/out-communities and, specifically, to the Rochester community/other communities and the city : 1. Rochester residents categorize the social world into Rochester (in-community/"us") and the city and other communities (out-community/"them"); 2. Rochester residents derive a collective sense of self-esteem from their social identity as Rochester residents; and 3. Rochester residents derive their collective self-concept or community image in part from how Rochester fairs compared to other communities.

To be clear, Theme IV indicates Rochester has a collective sense of low self-esteem as indicated by its negativity, aimed both inward at fellow community members and outward at the world. In light of the abundant and sensational activities, opportunities, resources, and talents elsewhere, an inferiority complex exists — and residents dismiss local ideas and abilities. Accordingly, collective self-respect and self-confidence is low, collective submissiveness simmers, and, thus, comparison to worse-off communities boosts the collective self-image. Increasing community confidence and inflating community satisfaction, social comparison to worse-off communities points to Rochester as "second to none." It results in a "content" community-image (Borich and Korsching 1990) — an image that demands no time, energy, or commitment from community members.

Extending social identity theory in this way coincides with views extended by other researchers (e.g. Bell 1992; Borich and Korsching 1990; Jones 1995; Vidich and Bensman 1958; Wright 19__). Today via mobility, media, and communication, wrote Jones (1995 43), "people have the opportunity to compare the place where they live with other places. . . . and by the same means, 'read' the place where they live in the context of more general popular discourse on both the rural and the urban." As a result, through social comparison, a community's self-concept if formed. Social comparison thus provides an important source of community identity and value (Borich and Korsching 1990), and it allows for the maintenance of that identity in the face of perceived threats (Bell 1992; Borich and Korsching 1990; Vidich and Bensman 1958; Wright 19__).

Take "Springdale," New York, for example: rural-urban differentiation help residents "recreate the sense of community when it is temporarily lost," wrote Vidich and Bensman (1958 31)." Or consider the exurban English village of Childerley: differentiation between rural and urban residents — "country people" and "city people" — helped to establish community "identity, status and rights (Bell

1992)." It appears that rural-urban differentiation helps Rochester residents establish their own identity about which they are proud.

Recognizing Gemeinschaft-like Qualities

So it is that social comparison creates and maintains a community's self-concept as an ideal place to live. But social comparison alone isn't responsible. Results of this study indicate that recognition of gemeinschaft-like characteristics plays an important role in the pro-rural perspective. Like residents of other rural communities (Bell 1992; Bonner 1997; Herrman and Attitz 1990; Jones 1995; Valentine 1997; Yerxa Research Inc. 1992), Rochester residents consider their relationships within the community — with family, friends, and place — the measure upon which to judge their community as "a good place to live" and to determine that "rural living provides an ideal quality of life."

In classic Tonnies tradition, Rochester residents define their community as both "the land and the people." They value both the social community and the natural world, viewing them as interconnected rural attributes that give rise to the equally important attribute of attachment and belonging. This is Tonnies' perspective of "blood," "mind," and "place."

Indeed, like Tonnies, Rochester residents appreciate the "small-town atmosphere (Patton and Stabler 1979)" — the people, friendships, family bonds, neighbourliness, mutual aid, and moral values they perceive Rochester as encompassing. They value the low crime rate and children's safety that arise from the close family ties, good friendships, caring neighbours, high visibility, and a sense of belonging (Bonner 1997; Valentine 1997). They appreciate the social interaction, self-actualized participation, ties, and support. They enjoy tradition — or, that is, at least knowing about it. They appreciate the inherent slower rural pace or "Rochester time." And, too, like Tonnies, they treasure the peace, quiet, beauty, and good health that the natural landscape offered.

Regarding the land specifically, not only does Rochester residents' perspective parallel Tonnies', but it parallels the viewpoint of other rural community residents. For example, in Bell's study (1992 70), a Childerley resident said: "It's been really great bringing the kids up in a natural environment;" a Rochester resident said, "We wanted our kids to grow up in the bush — in a natural place, not in the city." In Herrman and Attitz's (1990) study, almost 40 per cent of the farmers surveyed appreciated their profession for its connection to nature.

In short, results of this study indicate that it is social and natural associations together that define rural living to Rochester residents. Typical of rural residents elsewhere, it is for these qualities that they've moved to and now live in Rochester and that they endure what Simmel considered the oppressive side of gemeinschaft and what Rochester residents call the "modern-day pace." Accordingly, it is these gemeinschaft qualities they want preserved. Moreover, in line with the suggestion of Willits, Bealer, and Timbers' (1990), it is these qualities with which they want to advertise Rochester a "good place to live" and to visit. In hopes of improving the Rochester economy, they are prepared to market their lifestyle as other communities have done (Bonner 1997).

They are prepared, for instance, to promote their community as a great place to raise a family. The Rochester perspective that small-town living is good for children aligns closely with findings of many other sociological studies (Allen 1993; Bell 1992; Bonner 1997; Willits, Bealer, and Timbers 1990; Yerxa Research Inc. 1992). For example, a survey of residents of Edmonton and surrounding rural communities (Yerxa Research Inc. 1992) revealed that 81 per cent of the rural residents consider the country a better place to raise a family. That pro-rural viewpoint belongs to urban residents as well: just 20 per cent of Edmonton respondents consider the city a better place to raise children and — from the *Globe and Mail 's Toronto* magazine — 58 per cent of Toronto-area respondents consider it more difficult to raise happy well-balanced children in the city than in a small town (Bonner 1997, 77). Indeed, residents themselves have come to Rochester with that consumer attitude.

Previous research indicates that it is children's safety and low crime rates that people consider important (Bonner 1997; Willits, Bealer, and Timbers 1990; Valentine 1997; Yerxa Research Inc. 1992). Especially interesting is a recent Alberta case study. Bonner (1997) conducted a qualitative study of parenting in rural society in Camrose, Alberta — a farm city 100 kilometres southeast of Edmonton. He reported that Camrose residents value their community as "a great place to raise kids."

It was with words reminiscent of Rochester residents' that Bonner's respondents described Camrose. It is a place where "you know more people" (At Rochester, "you know the people in the community.")." It is a place where "you learn that you still can live with [people], even if you have strong disagreements with them" (At Rochester, "you have to get along with the people around you whether you like them or not.").

Moreover, both small communities are places perceived as "safer" than the city, in terms of crime as well as children's well-being. Regarding low crime rates, Camrose residents "do keep our houses open when we go out. . . . We do keep our cars open," while " Rochester residents "very seldom lock the door " and do "leave keys in the car." Regarding city schools, a Camrose respondents noted that they had "too many muggings and too many whatever right in the hallway," while a Rochester respondent remarked, "I was at [a city] school when the gunman came into the school." Finally, both Camrose and Rochester respondents considered the city, in general, to be a negative place to raise children: an "anonymous" place where kids "get into trouble," members of both communities said. In short, the idea that the rural quality of life is "second to none" for child-rearing is not Rochester residents' alone.

Although they value the gemeinschaft qualities of rural living, Rochester residents perceive these qualities to be in decline. These results, too, coincide with results of previous research (Bell 1992; Willits, Bealer, and Timbers 1990). And they coincide with Tonnies' viewpoint as well: for Rochester residents perceive negative qualities that Tonnies would consider gesellschaft to be infiltrating Rochester. They perceive an increase in strangers, a decrease in friendliness, a decline in neighbouring, a loss of tradition, a rise in crime, and a fragmentation of community. They experience a frenetic pace, stress, and anxiety, exhaustion, and depression resulting, they say, from marketing, consumerism, and commuting.

What's more, they experience a sense of competition regarding material acquisitions and their social status.

Dismissing Problems

Indeed, despite Rochester residents' contention that rural living offers an ideal quality of life, results of this study indicate that all is not idyllic at Rochester. Theme I reveals that Rochester residents quickly downplay and dismiss the problems of rural living. I found no reference to this tendency in the Rural Sociology literature. Apparently, it is an effort to preserve the "rural mystique (Willits, Bealer, and Timbers 1990)." Perhaps it reflects a desire for simplicity and nostalgia in today's complex world.

On the other hand, however, I did find reference to the "content community" described earlier. According to Borich and Korsching (1990 8), a content community is one in which residents compare their community with referent communities to determine its present status or situation, concluding the community to be satisfactory and in need of no repair. Clearly, Rochester is a content community.

What's more, however, Rochester residents blame their community's problems on newcomers and outsiders, on government and corporations, and on uncontrollable change caused by mechanization, transportation, technologies, communication technologies, and the city. This is not unusual (Rayside 1991; Sim 1988; Vidich and Bensman 1958). In accord, they insulate themselves from responsibility for community problems and need for community action. The us-versus-them perspective that arises ensures community cohesion for the short-term, but ultimately it is destructive (Flora et al. 1992). It fails to acknowledge, address, and resolve community problems.

So it is that Rochester residents consider Rochester an ideal place to live — better than the city, better than any other rural community. Using three different approaches they arrive at and maintain their perception: 1. They compare Rochester with other communities, including the city; 2. They value and look for gemeinschaft-like characteristics; and 3. They downplay and dismiss any negative aspects of their community, blaming them instead on external forces. Regardless of any evidence to the contrary, the rural differences are seen to be real: that is, residents *know* there is a difference between rural and urban living and they appreciate that difference.

Theme II Reduced opportunity for social interaction within the community reduces community cohesion

Table 9.2 Manifested patterns and latent perspectives leading to Theme II

	MANIFESTED PATTERNS	LATENT PERSPECTIVES

THEME II

Reduced opportunity for social interaction within the community reduces community cohesion.

1. Opportunities for face-to-face interaction have declined in the Rochester community, both in number and importance.
2. Residents commute out of Rochester to obtain what their community lacks.
3. Residents spend, time, energy, and money away from Rochester.
4. Rochester residents interact with each other outside of Rochester.
5. Rochester residents interact within Rochester infrequently and less often than in the past.
6. Residents are busy, tired, and stressed out from the inconvenience of commuting.
7. Residents rarely volunteer.
8. Mutual aid has diminished.
9. Community functions draw only a small proportion of the broad community.
10. The number of acquaintanceships and friendships within the community has decreased.
11. Young and old are leaving.
12. Outside interaction reduces local proximity or "propinquity," familiarity, common experiences, and similarity and, in turn, understanding, compassion, support, and trust.
13. Family farms are growing larger, thus reducing propinquity.
14. The once-strong community cohesion has weakened.
15. Negativity proliferates in the Rochester community.
16. The desire for social interaction declines.
17. The feeling of togetherness fades.
18. Communities within the Rochester community exist — separate communities of interaction and friendships.

19. An egocentric outlook creating a lack of understanding exists in each community within the community.

20. People place individual well-being before community well-being.

Theme II Interpretation of Data

Reduced opportunity for social interaction within the community reduces community cohesion. This was the second theme that emerged from patterns across focus-group categories. Reduced opportunity for social interaction leads to fewer face-to-face community interactions that, in turn, lead to fewer friendships and acquaintanceships and, thus, to a less bonded community.

Manifested Patterns

A number of patterns led to this theme. The first pattern revealed that opportunities for social interaction have declined in the Rochester community, both in number and importance. The train around which daily interaction centred has gone; businesses around which activity bustled have disappeared; family farms around which neighbourhood cooperation centred have grown corporate; and schools around which neighbourhood recreation focused have centralized. Activities that once went on, don't now. Meanwhile, modern technologies facilitate lonely cocooning and insulation from the community. Telephones replace face-to-face-conversation; television provides in-home entertainment; and computers allow at-home employment.

What's more, there are business, employment, recreation, and entertainment opportunities not inside but outside of Rochester, with residents travelling to meet their needs and interests. In just thirty minutes, jobs, fun, and services all can be had. In just sixty minutes, the city can be reached. As a result, a second pattern emerged: each day, people travel away from Rochester to obtain what their community lacks.

Then came a third pattern: residents spend time, energy, and money outside of the community. They interact with each other outside of the community, pattern four. Pattern five revealed that Rochester residents interact in the community infrequently and less often than in the past. A sixth pattern revealed that they are busy, tired, and stressed out from the inconvenience of commuting. They have little if anything left for either informal or formal community participation, and rarely volunteer — pattern seven. Neighbours rarely help and visit one another anymore — pattern eight — and community functions usually draw just a small proportion of the community, pattern nine. At the same time, however, it is the infrequent but planned and formalized events like Seniors' Suppers that provide a reason to gather in this community.

Pattern 10 showed that the number of acquaintanceships and friendships within the community has decreased and, thus, the number of weak and strong ties has fallen.

Pattern 11 showed that the young and the old are leaving and thus, the number of strong family ties in the community is declining. Pattern 12 showed that outside interaction reduces local proximity or "propinquity," familiarity, common experiences, and similarity and, in turn, understanding, compassion, support, and trust Pattern 13 showed that family farms are growing larger, thus reducing propinquity further.

According to pattern 14, community cohesion has weakened. And pattern 15 revealed that negativity flourishes. Backstabbing and "the talk" — although not new — are strong here where familiarity and cooperation wane, and criticism, exclusion, and subtle intimidation exist as well. Negativity eats away at cohesion further, corroding trust and support, and raising levels of personal stress. As a result, the comfort and security that the community once offered now diminishes — and, with it, the desire for social interaction, pattern 16.

And the sense of togetherness fades pattern 17 revealed. Because it is no longer fostered by the lifestyle of the past, older residents considered it eroded although some newer and younger residents considered the "feeling" strong. Moreover, there are communities within the community, pattern 18 revealed.

Communities within the communities not only offer social interaction and friendship to persons inside of them, but they sometimes instigate hostility between persons inside and outside of them. These communities within the community offer a vantage point from which to view the community as a whole. Because little information flows between them however, egocentric perspectives emerge — and awareness and understanding about Rochester needs, activities, issues, and decisions declines: pattern number 19. Isolation between sub-communities grows. Cooperation drops. And caring, understanding, trust, and support fade further. In sum, Rochester fragments.

At the same time that cohesion decreases, community commitment weakens. Instead of unity and collectivism, there is obvious individualism, revealed pattern number 20. Resident's interests and time revolve around their family and acquisitions, too self-absorbed to take time for civic duty. Some residents would like to volunteer but won't commit because they don't know if they will be available. Teenagers and young adults leave, their activities not concerned with community obligation. Meanwhile, Rochester residents struggle alone, emotionally and financially, to meet their vision and raise their children. All in all, it is clear that residents place the well-being of themselves and their families before that of the community in which they live.

Discussion of Theme II

Reduced opportunity for social interaction within the community reduces community cohesion: this was Theme II. Despite Theme I's revelation that Rochester residents perceive Rochester as harbouring an ideal quality of life, the reality is that the gemeinschaft-like qualities they appreciate in Rochester are limited. Residents meet their personal and psychological needs elsewhere. In short, their perspectives and their reality contradict.

Whereas once Rochester was a community of established families, a network of friends and acquaintances, a population of interdependent neighbours, and a community of self-actualized volunteers, it is no longer. Social interaction and its resulting acquaintanceships, relationships, ties, and — ultimately — support, cohesion, and commitment are no longer integral ingredients of the Rochester community. Instead, community members depend on nearby business centres for their social as well as economic needs. Larger towns nearby offer service, entertainment, and recreation that draw Rochester residents from the community, that foster emotional relationships and ties outside of the community, and, therefore, that weaken the community bond.

In other words, Rochester has little measurable purpose. Without purpose, dedication to activities and commitment to goals decreases. Take Rochester organizations, for example. In the past, organizations — like the community itself — arose out of need. Interdependency and community were one in the same. But in today's fast-paced far-reaching world, however, community interdependency is gone and residents now address specific interests, "with personal preference taking precedence over communal responsibility (Sim 1988, 28)." Indeed, Rochester organizations exist generally out of desire rather than need, their meetings and activities missed without serious or concrete repercussion. Residents' sense of responsibility important to building community cohesion is outweighed by what they consider more pressing individual needs. The common sense of identity and unity fractures.

Furthermore, individual needs are met at home in isolation as well as in business centres away. The telephone, for example, allows Rochester residents conversation without face-to-face contact. The television and computer allow residents to cocoon in their homes, decreasing resident contact, reducing common experiences, and limiting the number of social ties and community friendships. What results is a community whose members find it difficult to identify with one another as a community (see Taylor 1991). What results is a fragmented Rochester community.

Becoming Dependent

Theme II shows that the once vibrant Rochester community has become a community of outside dependence, few opportunities, great mobility, much stress, limited social interaction, restricted communication, and many communities within the community. As article after article illustrates (e.g. Brown 1993; Fuguitt 1991; Hoyt, O'Donnell, and Mack 1995; Jacobs and Luloff 1997; Klassen 1975; Lind 1995; Pinkerton, Hassinger, and O'Brien 1995) Rochester is not unusual. Rural communities planetwide face significant changes in "form, function, and population (Dahms 1995 21)" resulting from improved mobility, machinery, and mechanization, advanced communication and technology, and escalating urbanization, consumerism, and globalization. Academic and popular literature alike describe how economic and social conditions have changed throughout Canada's prairies and around the world. They describe how isolated and autonomous communities have become interconnected and dependent communities. Theme II presents yet further evidence.

More precisely, Theme II supports the statement of Johansen and Fuguitt (1990 2) that small towns serve primarily as residential rather than commercial and manufacturing centres and that rural residents travel many kilometres each day to obtain wants and needs. It supports the general contention that urban values have penetrated the countryside and that mass consumerism has taken a toll. And it backs the assertion of Brown Hudspeth, and Odom (1996) and others (Brunner and Kolb 1933; Herrman and Beik 1968; Johansen and Fuguitt 1973; Williams 1981; Pinkerton, Hassinger, and O'Brien 1995; Pulver, Stone, and Chase 1982; Zimmerman and Moneo 1971) that mobility and communication have placed small town entrepreneurs in direct competition with their more metropolitan counterparts — that small rural communities cannot compete with larger towns offering a wider and less expensive selection of goods, services, and opportunities.

Moreover, Theme II falls in line with the assertion of Zimmerman and Moneo (1971) that a "prairie community system" has developed in Canada. Among the changes to western Canadian rural communities has been the development of an integrated rural system, they wrote — a total system that is closely related to the needs and purposes of the total society, supplying food, energy resources, and nature worldwide. This prairie community system entails a close relationship between community, the nation, and the world. It includes national and world ties. Because of its formation, what once were indistinct, homogenous, and autonomous rural communities now are differentiated into an interconnected network of business centres or "farm cities," home-towns, and "stop-off centres" — each that meets separate needs of rural residents. In short, dependency exists. And Theme II concurs. Residents of Rochester now depend upon business centres and major cities to meet their economic needs.

As well, they depend upon business centres and major cities to meet their personal and psychological needs. Although it is in accord with Zimmerman's and Moneo's (1971) perspective that Rochester was settled and then transformed and that Rochester residents now travel at least thirty miles for most opportunities, goods, and services, Theme II reveals that the prairie-community-system perspective does break down. For where Zimmerman and Moneo conclude that business centres fulfill economic needs and stop-off centres fulfill personal and psychological or "gemeinschaft needs," Theme II reveals that service centres fulfill both of those roles.

Specifically, Theme II reveals that the Rochester community — a stop-off centre — addresses only some personal and psychological needs and does not necessarily *fulfill* any of them. As much as Rochester residents want to and try to believe that their small community meets needs intrinsic to personal and psychological well-being, the reality is that it does so less and less. Pursuing goods, services, activities, and opportunities elsewhere, Rochester residents address their personal and psychological needs elsewhere. Consequently, opportunities for face-to-face interaction dwindle, relationships diminish, and the antecedent bonds that Social Psychology research indicates are important to community support and community cohesion weaken (see Baron and Byrne 1991; Forgas 1985; Pillari and Newsome 1998; Taylor, Peplau, and Sears 1997).

Moreover, pursuing goods, services, activities, and opportunities elsewhere means reduced opportunities for one-on-one interaction with the land as well as the residents of Rochester. It means reduced opportunities for hands-on "interaction with the land of the community. What is "hands-on" interaction with the land? It is intimate contact with the natural world that involves all of the senses. It is the experience of seeing, touching, smelling, hearing, and tasting Nature. In the past, whether residents were chopping wood, walking behind a horse-drawn plough, driving an open-air tractor, planting, weeding, or harvesting a garden, eating wild berries, or viewing stars from their outdoor john, daily living and hands-on interaction with the land were one in the same. But, today, with time spent elsewhere and in an artificial environments, residents are separated from the land they inhabit. Limited time in the Rochester community and a frenetic schedule means limited time to experience and learn about its natural world.

Commuting to Stress

So it is that according to Theme II, business centres not only provide economic and social opportunities *to* Rochester residents — they usurp them *from* Rochester residents as well. They draw people away from the people and the land of their community. Additionally, they usurp time and energy — time and energy required to pursue personal and psychological needs, time and energy required to create and maintain an interactive community, time and energy essential to the community involvement that residents consider critical to community well-being. How? Residents commute. But the emotional toll that residents decried is described only as "inconvenient" in the academic record (e.g. Fuguitt 1991; Johansen and Fuguitt 1984; Fuguitt, Brown and Beale 1989; Green and Meyer 1997).

In short, what Rochester residents perceived as a fundamental problem of rural living today has received virtually no research. To be sure, the economic benefits of commuting are addressed in the literature (e.g. Fuguitt 1991). And the stress from sources such as the farm crisis is examined (e.g. Jacobs and Luloff 1997). Indeed, there is even report of rural living being emotionally stress-free (Bonner 1997): that from residents of a "farm-city (Zimmerman and Moneo 1971)" rather than a stop-off place, however.

But make no mistake: the rural lifestyle currently includes commuting and, accordingly, inconvenience, time, and stress. As more people move into small rural communities in search of "an ideal quality of life" and drive to employment away (Fuguitt 1991; Garkovich 1982; Green and Meyer 1997), commuting will take an even greater hold on rural communities. The magnitude of commuting stress will only increase in the future — on the individual and, therefore, on the community.

Decreasing Interaction —Decreasing "Community"

At the same time that commuting stress surfaces, however, Rochester's support networks wither, Theme II reveals. This finding falls in line with previous research indicating people rarely seek relatives, neighbours, or clergy in times of trouble anymore (Levine and Perkins 1992; Melton 1992). For example, Melton (1992) found that when community members face problems with their children, poorer residents seek help from "nobody" or the emergency room while wealthier residents seek help from professionals in the suburbs. To be sure, like small rural communities nearly everywhere (see Flora et al. 1992; Rogers et al. 1988; Sim 1988), as Rochester's social interaction occurs away, friendships and thus social networks of support are forged away.

What's more, such other inherent community qualities as cohesion and commitment fail to arise, reports Theme II, again concurring with previous research. According to the literature, social interaction leads to acquaintanceships and relationships that, in turn, connect people in a sense of shared identity (see Baron and Byrne 1991; Flora et al. 1992; Forgas 1985; Middlebrook 1974). What Theme II indicates is that both acquaintanceships and relationships — both weak and strong ties — are important to community cohesion: for without both, isolated and independent communities within the community arise just as Granovetter (1973, 1982) suggested. According to this study, Rochester residents rarely interact with the community as a whole any more, and, therefore, form fewer weak ties. Without the weak ties to disperse ideas and information into groups bound by strong ties, the community fractures into communities within the community, just as Granovetter predicted. Moreover, without formal communication between the groups, the fracture deepens.

Clearly this finding aligns not only with Granovetter's "strength of weak ties" argument but it aligns with Wilkinson's thinking (1986, 1991) as well. In line with Wilkinson, residents no longer need to rub elbows, residents are less likely to rub elbows, residents' local community fragments. Dependency and distance are the two key barriers to cohesion just as Wilkinson (1991) contended.

The fact that commitment wanes as well as cohesion is no surprise — for commitment is a function of cohesion, Social Psychology literature reports (see Taylor, Peplau, and Sears 1997). Commitment is the "attachment to social relationships" in a community (Randall and O'Driscoll 1997, 607). Commitment is all of the positive and negative forces that act to keep an individual in the community — positive forces such as liking other residents and negative forces such as having made a large investment in the community (Taylor, Peplau, and Sears 1997, 211). Moreover, commitment is related to sense of responsibility or civic duty, reported Napier and Maurer (1978). Theme II provides evidence.

At Rochester, commitment dwindles and civic duty wanes. From Theme II, it is clear that the sense of responsibility has fallen with the passing of the first and second generation. The report that today's residents volunteer in the Rochester community only when directly impacted falls neatly in line with the "vested interest perspective" that Napier and Maurer (1978 13) described. "People must believe they will benefit from planned change projects or they will not participate in the first place and their participation must be reinforced with rewards from time to time or they will not continue to support them," they wrote. Participation boils down to costs and benefits, they explained. More clearly, unless people see direct, immediate, and intermittent benefit, the perceived cost is too great, and they will not volunteer in the community. Costs might include, for example, personal time, personal funds, and, ultimately, changes in the status quo, perhaps increased taxes, increased land-use controls, and even lost friendships. With commuting stress prevalent, powerful, and increasing at Rochester, costs are great indeed.

The Rochester community isn't the only community experiencing loss of involvement, however. Members of rural Ontario communities also reported increasing difficulty in finding volunteers (Rayside 1991). It is especially hard to find female volunteers. "They're working; they have a full-time job . . . . they have the children at home from school," explained one small-town resident (Rayside 1991, 151). In short, Rochester is not alone. Across rural communities, time and energy are at a premium — and regardless of how important rural residents consider volunteering (Bonner 1997; Rayside 1991; Sim 1988), it is on the decline.

At Rochester and elsewhere, what results is that noncontributors benefit from other residents' involvement. In Sociological terms this is called "the free-rider problem." Previous research indicates that it deters collective action (Gould 1993; Macy 1993; Oegema and Klandermans 1994). Sim described residents' failure to volunteer in words reminiscent of those of Rochester residents. He wrote that they are "hitchhiking, taking all they can out of the community but putting little back (1988 81)." What's more, Orr (1992 102) made a similar observation. The failure to volunteer yields "residents" not "inhabitants," he explained. It is the difference between exploitation and sharing. The resident "mostly needs to know where the banks and stores are in order to plug in. . . . merely "consumers" supplied by invisible networks that damage their places and those of others;" the inhabitant is part "of a system that meets real needs for food, materials, economic support, and sociability." Together, the inhabitant and place shape each other.

In summary of this data, Theme II provides yet further evidence of change in small rural communities. It indicates that residents' personal and psychological needs are being met in larger business centres. It reveals that "commuting stress" ensues. In itself, commuting stress is an unexplored problem of rural living. Moreover, the impact of commuting stress on community is an unexplored problem too. Apparently, however, its consequences are far-ranging, for — at Rochester at least — it is associated with decreased community interaction, decreased community support, decreased community cohesion, and decreased community commitment.

Theme III The contemporary rural lifestyle provides little opportunity to build roots

Table 9.3 Manifested patterns and latent perspectives leading to Theme III

	MANIFESTED PATTERNS	LATENT PERSPECTIVES
THEME III The contemporary rural lifestyle provides little opportunity to build roots	**1.** "Roots" and being "rooted" were frequently-used focus-group terms.	**1.** an inside-versus-outside perspective emerged, pointing to a sense of belonging
	2. Roots mean an attachment to place, connections, and ties.	
	3. Roots take work.	
	4. Roots take time to develop.	**2.** Roots are a sense of belonging.
	5. Roots are the product of one-on-one interaction — of face-to-face interaction with other people and hands-on interaction with the land.	
	6. Roots make a place a special place — a home place — to interact with forever.	
	7. Roots foster satisfaction and happiness with a place and one's self.	
	8. Roots make a place a home to never leave.	
	9. Roots make a place hard to leave.	
	10. Roots draw people back to visit.	
	11. Roots pull people back to live.	
	12. New people "come and go," suggesting that newcomers feel no strong attachment for or belonging to the community.	
	13. Many newcomers are commuters, unavailable and too busy to participate in community activities.	
	14. Many newcomers are transients, gone before they have root-building experiences.	
	15. At least some newcomers have no intention of putting down roots.	
	16. Rochester offers little chance to build roots.	

17. The school provides a social framework for face-to-face social interaction.

18. Rochester residents spend much time away from their community.

19. The contemporary rural lifestyle is fast-paced, busy, stressful, and fatiguing.

20. Rochester residents are too busy, stressed out and worn out for face-to-face or hands-on community interaction.

Theme III Interpretation of Data

The contemporary rural lifestyle provides little opportunity to build roots. This was the third theme that emerged again and again across focus-group categories. The contemporary rural lifestyle is a fast-paced, busy, stressful, and fatiguing lifestyle that doesn't allow for face-to-face contact between community members and hands-on encounters with the land — which, in turn, limit the familiarity, understanding, and appreciation of the community, an attachment to the community, and a sense of belonging and place.

Latent Perspectives

From what patterns did this theme emerge? To begin, there was a latent perspective that pointed to a sense of belonging. It was an inside-versus-outside perspective that linked pattern to pattern. It materialized during comparison of Rochester with the outside world. It manifested in words like "outside of the community," "the outside," "from away," "outsiders," and "outside people." It manifested in a number of comments as well. For example, one participant said, "I heard it's really getting rough out there." Said another, "We've got to find out why people AREN'T moving into Rochester." Yet another participant noted that some new people "come in for farming purposes. Indeed, it is "inside" the community that Rochester residents perceived that they live.

A second latent perspective was that roots are a sense of belonging. If a person is *rooted*, they are *connected* to the land and the people and thus have *attachments* or *emotional ties*, thus receive emotional support, and thus feel a sense of belonging.

Manifested Patterns

Linked by these latent perspective and leading to this theme were numerous patterns. The first pattern was that "roots" and being "rooted" were frequently-used focus-group words. The second pattern was that roots mean an attachment to place, a connection, a tie. More specifically, participants described their attachments to childhood, memories, traditions, ancestors, and family — to experiences and an interconnection they'd had with both the people and the land. As well, they described psychological ties to the people and the land as well as economic sustenance during their passionate discussion of the family farm.

A third pattern was that roots take work: having "established something and built on that" were one respondent's words. A fourth pattern was that roots take time to develop. Yet a fifth pattern was that roots are the product of one-on one interaction — of both face-to-face interaction with other residents and hands-on interaction with the land. Barn raising, hosting community dinners, maintaining the cemetery, for example, involve face-to-face contact with people, while clearing bush by hand, gardening, and cutting firewood involve hands-on contact with the land. As I explained in my discussion of Theme II, hands-on contact with the land is the one-on-one contact with Nature that involves all of the sense. It is the experience of seeing, touching, smelling, hearing, and tasting the natural world we inhabit and the education arising from it. Seniors described a lifetime of both hands-on contact with the land and face-to-face contact with other residents, confessing to having put down very deep roots. Younger residents and newcomers described some face-to-face resident interaction but certainly fewer hands-on experiences with the land, only occasionally referring to roots in general and never discussing their own roots in particular.

What's more, a sixth pattern indicated that roots make a place a special place to interact with forever. When seniors described their desire to stay on the farm, they talked about it as a "special place" — to them and to their children and grandchildren who want it forever. Additionally, pattern seven revealed roots foster satisfaction and happiness with a place and ones' self. "I'm satisfied." "We're happy here." "We love it here." were some comments of people intending to stay. Accordingly, roots lead to long-lasting relationships with people and land. They make a place a home to never leave, pattern eight. They make a place hard to leave, pattern nine. Roots "draw" people back to visit, pattern 10. And they "pull" people back to live, pattern 11. More specifically, residents commented, it's "a natural move" to move back; for example, five of the 19 non-senior focus-group participants were residents or spouses of residents who had left the community and returned to their "connections" or "roots."

A twelfth pattern revealed that new people "come and go," suggesting that newcomers feel no strong attachment for or belonging to the community. A thirteenth pattern revealed that many newcomers commute to outside places for work and other activities — and, consequently, they are unavailable and too busy to participate in few face-to-face community activities with other Rochester residents. Said one focus-group member, herself a recent resident and a commuter, "They're still working in the city, but they would rather live out in what they perceive to be the country. So they move to a small community — but they're not part of the community because they're driving back and forth." Additionally, a fourteenth pattern showed many new people are "transients." They live in Rochester only one or two years before leaving for new jobs or better opportunities — and, therefore, they have little time and few experiences to know the Rochester people and land. However, pattern 15 showed, some newcomers have no intention of putting down roots anyway — of "putting down anything." They come planning to go.

At the same time though, pattern 16 revealed that the Rochester community offers few opportunities to build roots. Pattern 17 illustrated that Rochester School offers a social framework for interaction among school-age families — and, accordingly, a sense of belonging to them — but, clearly it is not enough. "What if you don't have children? . . . How do you gain a "sense of belonging?" asked one participant.

Besides the town businesses, no informal-gathering-place exists in Rochester. Besides the school newspaper, no community newspaper provides information regarding Rochester community activities. Moreover, no welcome goes out to newcomers. No opportunity exists for community-wide non-intimidating and effective input in community affairs, from which a sense of involvement and belonging could build. Residents spend much time away from the Rochester community, pattern 18. And, importantly, no opportunity exists within the community to alleviate the stress they feel created by the modern-day pace, pattern 19. With community members — newcomers and lifers alike — busy, stressed out, and worn out, one-on-one interaction, participation, and relationships both with each other and with the land are limited, and roots are not put down.

Discussion of Theme III

The contemporary rural lifestyle provides little opportunity to build roots: this was Theme III. The needs, wants, demands, and pace of contemporary rural living hamper one-on-one contact both with other residents and with the land. Daily outside opportunities and communication technologies limit face-to-face contact. Machinery, mechanization, and technology obstruct hands-on contact with the land. Commuting steals time and employment opportunities terminate experiences within the community. Because time is spent away; experiences, accomplishments, and friendships transpire away; memories and traditions are forged away; and roots are not put down. What results is a transient rural population and a community divided into new and established residents.

Becoming Transient

It was a transient rural population that Orr (1992 102) referred to when he differentiated residents from inhabitants. "The resident is a temporary and rootless occupant," he wrote, while "the inhabitant and a particular habitat cannot be separated without doing violence to both." Theme III concurs.

Theme III falls in line with previous research that reveals people move to rural communities not for employment but for quality of life — especially for the natural landscape (Russell 1995). Previous research indicates that North Americans move to the rural countryside because they *choose* to live in the countryside. Able to live anywhere, they live in a rural community because they *want* to live in a rural community not — as Rochester residents said of past generations — because they have "no choice." Accordingly, however, research also reports that most newcomers commute to jobs outside of the community. Moreover, new rural-community residents accept the commute, appreciate accessibility to a city (Johansen and Fuguitt 1984, 1990), and — after a few years — often move away, especially when they've failed to establish social ties to the new community (Glasgow and Sofranko 1980). Theme III is in full accord.

The move away from the rural community is instigated by economic hardship, reported Beale (1975), or by changing needs, noted Bonner (1997). Bonner (1997) found that people move to small towns to raise young children and leave small towns when their children grow up. Place has become a commodity, he wrote. Certainly, results of this study agree.

More specifically, Theme III backs Bonner's contention that what is perceived as small-town safety turns into small-town boredom once children grow up. Accordingly, this theme reveals that loyalty to place is limited. In the past, explained Card (1960), loyalty to community was affiliated with the pursuit of success and security — but, now, according to Theme III, people cut ties with their family, friends, and community to get ahead. Moreover, in the past, expressions of community loyalty flourished with, for example, campaigns to keep young people on the farm and appeals to support local merchants — but, now, this study and others (Ilvento and Luloff 1982; Bonner 1997; Orr 1992) report, residents weigh the cost and benefit of options far and wide and, then, select one best suited to their wants and needs. As Berlan-Darque and Collomb (1991) noted, individualism flourishes in the rural community, arising from the quest for an environment suited to private ambitions. Consumerism thrives. Indeed, like an increasing number of people planetwide, Rochester residents are consumers in pursuit of the best deal, be it where to live or what to wear.

According to Casey (1993 xiii), their increased mobility and range "brings increased risk, above all the risk of having no proper or lasting place, no place to be or remain. A transitory place is better than no place at all, but it only spurs on further searching for an enduring or at least reliable place." In other words, although Theme III reveals contemporary living provides little opportunity to put down roots, people still are driven by a basic need to belong (see Baron and Byrne 1991; Forgas 1985; Pillari and Newsome 1998; Taylor, Peplau, and Sears 1997). Social Psychology reports that people want to be liked, to be approved of, to be accepted, and to be treated well. Social animals that we are, we need to belong for our own health and well-being. But at Rochester and other rural communities (Allen 1993; Bonner 1997; Rayside 1992; Sim 1988; Vidich and Bensman 1958), new residents are perceived as outsiders.

Both by longtime residents and themselves, new residents are perceived as outsiders — and, conversely, longtime residents are viewed as insiders (Allen 1993; Bell 1992; Rayside 1991; Sim 1988; Vidich and Bensman 1958). According to Allen (1993), for example, the arrival of newcomers to a Washington farming community spawned "insider"/"outsider" labels and incited negative misperceptions about each groups, community division, tension, and, ultimately, an inability to work together. Social alienation resulted. Indeed, research has disclosed a new resident:long-term resident or outsider:insider bipolarization across North America and Europe (Bell 1992; Davidson 1990; Flora et al. 1992; Glasgow and Sofranko 1980; Jones 1995; Quinn 1994; Rank and Voss 1982; Rayside 1991; Russell 1995; Sim 1988; Vidich and Bensman 1958). Apparently, Rayside's (1991 21) contention that "the migrant is forever a newcomer" and Allen's (1993) finding that the newcomer is to be distrusted and excluded systematically ring true in places other than Rochester.

Interestingly, Allen (1993) reported remarks akin to those of Rochester residents. Said long-time Flemington residents: "Welfare people. They don't care about the town, they just moved in because of cheap rent." "These new people don't care to help neighbours, even in small jobs," "These people don't have any roots or background with Flemington." "...We don't know everyone." As well, Flemington newcomers said: "If you are not born here you don't belong here, even if you live here forty years." "They do not accept outside people well ..." and "Too many people have been here all of their lives, find[ing] anything or anyone different to be threatening..." Thus, animosity simmers not only at Rochester.

To be sure, research indicates it is difficult to enter a community based on kinships (Allen 1993; Bell 1992; Bonner 1997; Glasgow and Sofranko 1980; Rank and Voss 1982; Rayside 1992; Sim 1988). As a result, Bonner (1997) found that newcomers perceive themselves as outsiders and, accordingly, feel little sense of belonging and sense of attachment to their resident community. Indeed, they perceive the sense of attachment, sense of place, and local pride of longtime Camrose residents as a distasteful "lack of racial and ethnic diversity, narrowness and conservatism of its population, and the tendency to insularity (Bonner 1997)." Theme III indicates the same lack of attachment and belonging holds true for Rochester's new residents.

Forming Roots

The literature contends that attachment and belonging are associated with sense of place. Sense of place is "identifying oneself with the community in all its works, its ups and downs, its tensions, joy, and sorrows (Maser 1997, 238)." It is from sense of place, that "love, faith, trust, mercy, compassion, sharing, and justice, caring, understanding trust, respect, and mutual caring" evolve, Maser contended. It is from sense of place, Nozik (1992) wrote, that "the values of community, of attachment, commitment, mutual support, self-reliance, self-direction" evolve. With this view that attachment and belonging are important to community well-being, Theme III agrees. But with the view that sense of place is the *foundation* of community, Theme III disagrees. Instead, it points to something deeper.

What Theme III points to is interaction. It reveals that interaction — not sense of place — is the foundation of community. Specifically, Theme III discloses that beneath sense of place lie roots, and beneath roots lies interaction. Interaction is the foundation of the community just as Wilkinson contended (1991), but interaction means one-on-one contact with *both* the land and the people of the community.

For although Theme II and Social Psychology (see Baron and Byrne 1991) report that one-on-one contact leads to relationships and, thus, emotional ties, Rochester residents perceive also that emotional ties to each other *and* to the land form roots. Therefore, it follows that one-on-one contact with each other and with the land forms relationships and emotional ties to each other and to the land. Interaction with each other and the land forms relationships with each other and the land, which form roots that form a sense of attachment that form a sense of belonging that form a sense of place, sense of community, and "home." At the root of it all lies interaction.

That emotional ties are inherent to belonging, home, place, and sense of community is no news in either the academic or popular literature. However, previous research insufficiently shows the role that interaction plays. More precisely, previous research insufficiently shows that interaction both with people and with the land puts a two-stranded root down into the community; thus, it insufficiently reveals the complexity, strength, and importance of roots as well as the importance of land — not just the people — to community building, maintenance, and well-being.

That said, however, a single-stranded root has been described, with increasing age and social status as two rootlets. Specifically, "length of residence" has been declared the primary determinant of community attachment by researchers who contemplated only social ties (Fischer 1975; Goudy 1990; Kasarda and Janowitz 1974). This falls in line with the community land-use work of Russell (1995) who explained that new rural residents appreciate a community's setting — "particularly historic buildings, traditional street layouts, and view of rural farmland" — while established residents appreciate the people. All in all, previous research indicates that the longer a person resides in a community, the greater their opportunities to select and foster desired *social* ties and, thus, the more favourable their view of the community and the greater their sense of belonging, they contend. Although it is recognized that many avenues of community attachment exist, selectivity for and fostering of land ties is neither contemplated nor emphasized. Not even Wilkinson (1991) who perceived ecological well-being integral to community well-being emphasized the significance of land ties.

But just as ecological well-being is integral to community well-being, land ties are integral to community roots. According to Theme III, the more time a person resides in a community, (ideally) the greater the opportunities to select and foster desired land ties as well as social ties and the more favourable their view of the community; the more favourable their view of the community, the greater their sense of belonging. I added "ideally" to this statement because another factor of rural living is at play: the contemporary lifestyle *limits* the formation and maintenance of roots. Propinquity, dependence, and the lifestyle they include reduce opportunities for interaction and, so, weaken social ties, community attachment, and belonging as Theme II, Wilkinson (1991), and Granovetter's (1973) indicate. Clearly, Theme III that few opportunities for face-to-face contact with each other and hands-on contact with the land exist at Rochester — thus few social ties and land ties can form, and few roots can be put down.

Although the field of Rural Sociology today fails to identify the land's important root-building role that was perceived by Rochester residents, residents of communities world-wide clearly comprehend a connection (Bell 1992; Bonner 1997). Attachment and belonging includes "the natural countryside" as well as social encounters, Bell (1992) discovered. Sense of place is "place, family, friends, and memories of growing up all interconnected in a way that generated a sense of community and local pride," Bonner (1997 136) wrote. Indeed, just as Tonnies perceived more than a century ago, community well-being is popularly perceived as a factor of land, family, and friends. Just as Sorokin and Zimmerman contended in 1929, the land is viewed by rural residents as shaping the people who live on it and, thus, the communities that inhabit it.

To some degree, research in fields other than Rural Sociology recognizes the importance of the land to sense of place and the importance of sense of place to community well-being (e.g. Kusel and Fortman 1990). Take research regarding environmental values: it acknowledges that sense of place arises from both physical and human ties (e.g. Brandenburg and Carroll 1995; Fortman 1990). It reports, for example, that 1. hands-on interaction with the land and 2. close proximity to the land create a strong sense of place. What's more, a new perspective of Community Development — "sustainable community development" (Maser 1997; Nozik 1992; Sim 1988) not yet recognized in traditional journals — emphasizes the combined importance of a healthy landbase and a healthy happy human population in community well-being. Generally, however, although locality is viewed as a component of place, community well-being is viewed narrowly to be based solely on a community's social and/or the economic components.

In summary, Theme III reveals that the reduced opportunity for interaction reported in Theme II results in reduced opportunity for personal experiences with both the people and land of the Rochester community and, accordingly, fewer and weakened social and land ties or "roots." Without roots, attachment, belonging, sense of place, and caring are not fostered; community animosity, division, and indifference toward both the people and land develop; and people move away. Therefore, one-on-one contact with both the land and the people is critical to the building, maintenance, and well-being of community. Interaction — from which roots originate — is the foundation of community.

Theme IV Negative Attitudes and Behaviours Impede Community Action

Table 9.4 Manifested patterns and latent perspectives leading to Theme IV

	MANIFESTED PATTERNS	**LATENT PERSPECTIVES**
THEME IV Negative attitudes and behaviours impede collective action.	**1.** Negative attitudes and behaviours proliferate throughout the Rochester community and in at least some community organizations.	**1.** an us-versus-them perspective during discussion of formal organizations
	2. Negative attitudes and behaviour are disliked.	**2.** an us-versus-them perspective during discussion of informal communities within the community
	3. Negative attitudes and behaviours enforce rigid social boundaries.	**3.** an "us-versus-them" perspective or sense of belonging to the Rochester community resulting from outside-world comparisons
	4. Negative attitudes and behaviours undermine the sense of security within a community.	**4.** a reassurance from social comparison with the rest of the world
	5. Negative attitudes and behaviour dampens enthusiasm.	
	6. Negative attitudes and behaviours squelch community volunteering.	
	7. Newcomers are resented because they often leave within one or two years.	

8. Change instigated by newcomers is curtailed.

9. Negative attitudes and behaviours beget negative attitudes and behaviours.

10. Negative attitudes and behaviours turn residents to activities away from the community.

11. Communities within the community exist.

12. Misunderstanding, suspicion, and contention sometimes arise between communities within the community.

13. Just a few residents — primarily long-time residents — make decisions for the community as a whole.

14. Negative attitudes and behaviours maintain the status quo.

5. an attitude of acceptance toward Rochester weaknesses

6. a reluctance to personally instigate change

7. a reluctance to volunteer except when personally impacted

8. a limited sense of community responsibility

9. a sense of powerlessness over the community's future

10. a perspective of being "taken"

11. a hesitancy to discuss the gossip and the power of life-time residents within the community

Theme IV Interpretation of Data

Negative attitudes and behaviours impede community action. This was the final theme resulting from analysis of patterns across focus-group categories. Negative attitudes include resentment, animosity, pessimism, and apathy; negative behaviours are "backstabbing and the talk," nay-saying, criticism, exclusion, ostracism , and subtle intimidation. For the purposes of this study, community action means community development, which means "a group of people in a locality initiating a social action process (i.e. planned intervention) to change their economic, social, cultural, and/or environmental situation (Christenson, Fendley, and Robinson 1989, 14)." According to Flora et al. (1992 299), for collective action to occur, people in a community must 1) believe that working together can make a difference and 2) organize to address their shared needs collectively. But, at Rochester, negative attitudes and behaviours block community members from working together and, thus, they ensure the continued state of affairs.

Latent Perspectives

Across focus-group categories, a number of patterns regarding negative attitudes and behaviours surfaced. A number of latent perspectives pertaining to such attitudes and behaviours arose as well, linking pattern to pattern. For example, an us-versus-them perspective manifested itself during discussion of formal organizations. Consider the us-versus-them or we-versus-you statements in the following conversation about the Rochester Agricultural Society, for example:

Participant 1: We (the Ag. Society) are sort of — how would you put it — in charge of the MONEY. [The organization that] runs the hall, hosts the fair, holds bingo.
Participant 2: You're the umbrella organization.
Participant 1: That's right.
Participant 3: And they do everything that necessary.
Participant 1: And we want to do more.

The us-versus-them perspective further manifested itself during discussion of informal communities within the community. More precisely, participants considered their specific community within the community to be the "centre," "core," "crux" and "backbone" of Rochester — and, thus, the Rochester community. They viewed their community's interests and activities to be the "things that keep the community together." Moreover, they viewed themselves as "us" and other mini-communities as "them:" "I don't blame them (the seniors' community) for not being more involved;" " I'm sure they (new people) have a form of friendship while they are here;" "They (the Rochester School community) don't have much social life." In short, this perspective disclosed a sense of belonging within a community within community as well as a sense of isolation from and sometimes even hostility toward people outside of the clique.

What's more, the us-versus-them perspective materialized during comparison of Rochester with the outside world: "It's not only Rochester," "No comparison!" "It's a common thing," and "That's small town." This comparison provided more than a sense of belonging to Rochester, however. It provided reassurance as well. To be concrete, comparison of Rochester's state of affairs (us) with those of the outside world (them) vindicated Rochester as satisfactory — as a healthy and "normal" community. Regarding competition and envy, for example: "[It's] not only in this community but OUTSIDE the community." Regarding backstabbing and loose talk: "That's everywhere." Regarding young people leaving: "That's not typical to Rochester." But it didn't stop there. Social comparison granted not just a satisfactory state of affairs but an exemplary state of affairs. It created the impression that Rochester is an especially caring, cooperative, and cohesive community. It was comparisons to the past, however — to what undoubtedly was once a more economically and socially vibrant community — or no comparison whatsoever that resulted in concern.

A latent acceptance of the status quo surfaced as well — a complacency toward Rochester's weaknesses. About young people leaving, a person said simply, "They have to leave to survive." About the discomfort and intimidation many new people feel, a person commented, "They either feel at home or they don't, I guess." About the public water shortage, a participant said, "But THAT'S the water shortage." And about backstabbing and loose talk, a focus-group member remarked simply, "You need a thick skin."

In line with this acceptance was a latent reluctance to personally instigate change or even to volunteer time and energy. "You know, someone's really got to try to get more community involvement," said one participant. "Maybe it's a matter of time when that [volunteer] cycle comes around again," suggested another person.

Regardless of how important a role volunteering is perceived to play in community well-being, only certain people volunteer consistently while others volunteer just when personal needs require it if at all. This was the basis of the reported "volunteer cycle:" people volunteering only when their children's needs require it. This also was the basis of the unresolved town water problem: people directly impacted consider the lack of good town water a major problem while those unaffected are unconcerned — and so nothing has been done. In accord, too, was a limited sense of responsibility in the Rochester community. "They can close the school and shut down the community, but our farm will still be here," remarked one participant. Said another, "I am an entrepreneur. Not a volunteer. Not any more."

What's more, a perspective of helplessness emerged. Residents expressed their lack of control over Rochester's future. One focus-group member advised, "There's a lot of things in this world that aren't fair and I think we have to accept that . . . rather than trying to fight it — because you'd wear yourself right out trying to beat a dead horse." Others said simply the community had "no control" over its future. Losses in the eighties, government apathy, corporate control seem to have created a sense of powerlessness. A latent perspective of being "taken" illustrates this further.

Across focus-group categories, the word "take" arose repeatedly. Outside forces "take" from the community and, thus, "bring" unsolicited change. For example, corporate-minded individuals "take" control of farm operations with their purchase of land — and "take" money, neighbours, neighbour interaction, and neighbour support in the process. Corporations "take" control of farm markets with their monopoly markets. Corporations and heavy industry "take" trees, gas, gravel, sand, and Rochester money. Paved roads and fast cars "take" Rochester residents out of Rochester and travellers beyond it. The global economy, improved mobility, city and major centres, jobs, interests, and services all "take" working people, young people, new people, senior citizens, and families away from the community, and money and business opportunities too. Moreover, new people "take " without contributing. Jobs away "take" fathers away and "take" young adults away from their roots and support systems. At the same time, the "modern-day pace" "takes" precious and limited time and energy away from individuals, families, and community activities. Specifically, long working hours and daily commutes "take" time and energy from community involvement, and community involvement "takes" time and energy from individual and family pursuits. Telephones "take" away face-to-face contact and, thus, "association between neighbours."

Finally, the last latent clue to Theme IV "Negative community attitudes and behaviours impede community action" entailed the hesitancy with which focus-group participants discussed two aspects of negative attitudes and behaviours: 1. the powerful voice of long-time residents and 2. the backstabbing and gossip within the community. Their hesitancy pointed to an inherent risk and to the control that negativity wields. More precisely, it was with cryptic comments that participants referred to the people now seen to manage the community's state of affairs. For example, terms like "certain people," "boys' club," "the homegrown group," "the old guard," and "members of "the old established families" all were used. Said one focus-group member, for example, "There are certain people who kind of rule the community." Unnamed or maybe unnamable, these "they" were seen to make and break community decisions. With open communication rare, awareness about issues limited, and broad meaningful community participation uncommon, they were perceived to control the community's future, employing — consciously or subconsciously — negative attitudes and behaviours in the process.

Furthermore, it was in whispers — at least initially — that backstabbing and loose talk was discussed. As well, it was commonly buffered with remarks like "I hope not to offend anybody but..." and "I'm cautiously saying this" and cushioned with such comparisons to the outside world as "You get that anywhere." As well, it was during informal post-focus-group discussion that particularly open discussion concerning "the talk" unfolded.

Manifested Patterns

For, indeed, negative attitudes and behaviours in Rochester are powerful tools. That they curtail collective action was made clear by a number of patterns. The first pattern was that negative attitudes and behaviours proliferate in Rochester. They proliferate throughout the community and exist within some organizations. Focus groups lamented their existence and called for positive attitudes and behaviours — this was pattern two.

Pattern three indicated that negative attitudes and behaviours enforce rigid social boundaries — boundaries regarding expression of opinion, personal behaviour, and community activities. For example, people who rock the boat face exclusion: "So, I went to that meeting. Lots of things there I didn't LIKE. Well, I let them know that. And they never asked me to come to another meeting!" People who prosper endure "malicious" gossip. People who fail to conform to "community" views feel the heat of "the talk." In short, Rochester residents who push the limits of the status quo viewpoint and behaviour encounter negative social repercussions.

Accordingly, pattern four revealed that negative attitudes and behaviours undermine the sense of security within a community. Results show, for example, that backstabbing and gossip defy compassion and respect; they breed mistrust:

> To live in a small community, I've learned one thing: You extend your right hand in friendship and the left hand you keep on your sword.

They create discomfort, too: "You've got to be oblivious because otherwise you'd be in a mental institution."

Consequently, negative attitudes and behaviours dampen enthusiasm, pattern five. They turn people off from participation. Residents sometimes avoid openly discussing problems and strategic options, putting forth or acting upon an innovative idea, and volunteering and participating in local opportunities. For example, the intimidation that some residents expressed about Ag. Society meetings has led some persons to avoid other meetings, to attend meetings infrequently, or to attend meetings but voice the status quo opinion, voice no opinion, or voice their own opinion until it is criticized, ignored, or overlooked once too often.

In this way, negative attitudes and behaviours squelch community volunteering, pattern six. They pierce the very heart of community — volunteering. At Rochester where volunteering was considered a personal responsibility that "come[s] from the heart" and crucial to community well-being, negative attitudes and behaviours restrict participation.

A seventh pattern concerned newcomers specifically: newcomers are resented because they often leave within one or two years. While a range of viewpoints regarding newcomers was expressed, some residents view them as parasites, taking without contributing to the community and, then, leaving. These negative attitudes and behaviours serves to keep new people and new ideas at bay. Along with the many other aspects of negativity, it limits their participation in community events and activities and, therefore, discourages the change of all flavours they might bring. And ultimately, it paves the way for departure should they not fit in. Furthermore, such caustic attitudes dissuade newcomers from starting businesses. First "you kind of work your way into the society . . . . You get to KNOW people . . . . You gain the confidence of the people and the support," said one focus-group member; in other words you don't rock the boat. Thus, an eighth pattern indicated that change instigated by newcomers is curtailed.

Yet a ninth pattern revealed that negative attitudes and behaviours beget negative attitudes and behaviours. Regarding the Ag. Society, for example, intimidation has fueled resentment and hostility. Moreover, a tenth pattern showed that negative attitudes and behaviours turn residents not just off of the community but away from the community — emotionally and physically. Now able to choose with whom and where to interact, some persons drive to other communities to participate where they feel comfortable. Some long-time residents have moved business transactions elsewhere. Some new residents have moved families elsewhere. And some residents simply shun the Rochester community, avoiding people, organizations, meetings, and activities.

Alienation mounts. Communities within the community result, pattern 11. With little interaction and communication between them, misunderstanding, suspicion, and contention sometimes arise, pattern 12. A fractured rather than united Rochester community results with no common goal or vision — and, consequently, little likelihood of organizing or acting.

All in all, what ensues is that just a part of the Rochester community provides input and participates in community affairs. What therefore emerges is pattern 13: just a few residents — primarily long-time residents — make decisions for the community as a whole. What fails to unfold is the community working as one toward a collective goal or vision.

All in all, negative attitudes and behaviours maintain the status quo, pattern 14. Be it consciously or unconsciously, long-time members of the Rochester community control and manipulate their community's future. Through negative attitudes and behaviours, they ensure the status quo. As a result, those who "want to run the community" are able to ensure that they and those of their choosing stay in power. And those who envision planned change go up against the "theys" who feel possessive of Rochester as it is today. Collective action is impeded.

Discussion of Theme IV

Negative community attitudes and behaviours impede collective action. This was Theme IV. At Rochester, negative community attitudes and behaviours were of two types: 1. those aimed inward at community members, and 2. those aimed outward at the world and Rochester's role in it. Negativity aimed inward involved community interaction, and manifested in gossip, mistrust, resentment, animosity, nay-saying, criticism, exclusion, and subtle intimidation. Negativity aimed outward involved a negative community identity and entailed frustration, pessimism, anxiety, apathy, passivity, and a sense of no control. An inferiority complex and submissiveness thus collectively arise. What results is a community with a fatalistic self-image.

Negativity Aimed Inward

Negativity of the first type — that aimed inward at community members — composes the topic of the first part of this discussion. Long a topic of Community Studies literature (e.g. Bell 1992; Bonner 1997; Simmel 1966; Vidich and Bensman 1958), it constitutes both the flip side of community and the flip side of gemeinschaft that Simmel addressed when he discussed the "prejudices and petty philistinism" and "oppressive bonds" of community. It composes the "separate and hidden layer of community life" that Vidich and Bensman (1958) described when they discussed the self-image of Springdale, New York. It is the "power of rumours and reputation" that Bonner (1997) wrote of when he contemplated the "high visibility" and surveyability of daily life in Camrose, Alberta.

In short, negativity — particularly gossip — toward community members is viewed in Community Studies literature as a very real aspect of community. And it is seen as a component of community that residents choose to ignore (Bonner 1997; Rayside 1993; Vidich and Bensman 1958). Theme IV concurs.

Simply put, negativity toward fellow community members is contrary to the warm and welcoming town image that Rochester and other rural-town residents prefer. And Rochester residents — like other towns' residents (e.g. Rayside 1991; Vidich and Bensman 1958) — work hard to maintain that positive image. Like Springdale residents of Vidich's and Bensman's (1958) study, Rochester residents appear to exhibit two channels of communication: 1. public conversation that emphasizes the positive aspects of community, revolving around the collective success of the community and success of individual members; and 2. private conversation that entails intimate, negative, and private thoughts expressed interpersonally among just two or three people. The enthusiasm for Rochester's gemeinschaft qualities composes public conversation, while the hesitant, cryptic, quiet, and after-focus-group remarks composes private conversation. But the similarity ends with Vidich's and Bensman's contention that gossip "seldom hurts anyone" in Springdale. As Theme IV clearly shows, gossip and other forms of negativity as mistrust, resentment, animosity, nay-saying, criticism, exclusion, and subtle intimidation do indeed hurt Rochester residents — and, accordingly, do indeed steer residents' behaviour.

Negativity hurts. Because individuals are motivated to avoid pain (see Hilgard, Atkinson, and Atkinson 1975), targeted Rochester residents are motivated to cease their condemned activities or to avoid the community or to move far away. When they do so, gossip about their activities stops, their pain abates, community activity returns to the status quo — and individual growth and community change is arrested. Make no mistake, Theme IV clearly supports the contention (Bonner 1997; Rayside 1992; Taylor, Peplau, and Sears 1997; Vidich and Bensman 1958) that gossip maintains conformity — at least the appearance of conformity — controls behaviour and immobilizes change.

Indeed, the power of gossip, criticism, ridicule, sarcasm, jokes, rejection, and exclusion is recognized in the Social Psychology literature (see Forgas 1985; Pillari and Newsome 1998; Taylor, Peplau, and Sears 1997). Such behaviour is regarded as "intimacy substitutes (Beattie 1989, 185)" — protective devices blocking intimacy or closeness. Such negativity is also regarded as a form of social control by which a community safeguards its social norms. According to the literature, it serves as a strong and effective sanction against people who fail to conform to group standards. Even Simmel recognized its role in community more than a century ago: The small and restricted community anxiously "guards the achievements, the conduct of life, and the outlook of the individual," he wrote. Contemporary Sociology acknowledges negativity's role in community today. "Those who have lived all their lives in the country know how to behave 'normally' and if they transgress the boundaries of politeness and consideration, well-developed instruments of social control are used: gossip, ostracism, loss of privilege of non-monetary exchange, and other sanctions that can be extremely uncomfortable in a small settlement where face-to-face contact is frequent," Sim (1988 88) wrote. Theme IV is in accord. In fact — just as Pillari and Newsome (1998) suggested — this theme reveals that the threat of sanctions as well as the sanctions themselves keep people in line.

Indeed, change is resisted. Looking closer at community attitude toward change, research indicates that, at every level of being human, change is opposed. At the physiological level, for example, the human body strives to maintain a constant internal environment or equilibrium; when an imbalance occurs, it creates a physiological need and a psychological drive to satisfy that need — and to return to the status quo. At the psychological level, the homeostasis principle can be extended further: humans strive to maintain a psychological homeostasis (see Hilgard, Atkinson, and Atkinson 1975). Change disrupts our emotional equilibrium, creating stress that creates internal tension that manifests in discomfort, anxiety, fear, or depression. As a result, a person confronting change employs equilibrium-restoring behaviour to reduce stress and to return to homeostasis. They strive to maintain the status quo.

At the community level, too, change is resisted (Allen 1993; Borich and Korsching 1990). Extending the homeostasis principle even further, it becomes clear that Rochester residents collectively are motivated to restore equilibrium. Change disrupts community equilibrium or the status quo, creating a collective stress that creates a collective tension that manifests in discomfort, anxiety, mistrust, resentment, fear, or depression. As a result, the persons confronting change employ equilibrium-restoring behaviour such as gossip, nay-saying, criticism, exclusion, and intimidation to reduce stress, to stop change, to restore homeostasis. They strive to maintain the comfortable status quo.

All in all, negative attitudes and behaviors aimed inward toward fellow community members ensure the status quo. Simmel recognized this when he lamented the "shackles" of small-town-living. In *The Metropolis and Mental Life* (1966), he wrote that the suffocating, conforming, and "de-individualizing" side of community binds residents religiously, morally, and economically and limits differences, freedom, and growth. In *Small town in Mass Society*, Vidich and Bensman (1958) wrote that gossip ensures personalities not issues underlie community politics. In "Development in a Community Under Stress," Allen (1993 164) wrote that the ascribed status system of traditional rural communities "locks out" the leadership of those who have not lived within the community long enough to gain an ascribed status.

Not only does Theme IV support the academic contention that community negativity like gossip immobilizes change, but it supports the academic contention that community negativity increases self worth (see Baron and Byrne 1991; Taylor Peplau, and Sears 1997, 188). Take the tendency of Rochester residents to compare their community with others — the topic of social comparison discussed briefly in Theme I. Social Psychology tells us that social comparison leads to an ingroup-outgroup perspective and, ultimately, to an us-versus-them viewpoint that heightens the sense of ingroup-belonging and — when the ingroup is considered superior — heightens the sense of self-worth. What, then, of Rochester? If we consider residents' perspective that longtime Rochester residents are insiders (ingroup members) and newcomers are "outsiders" (outgroup members), then the Rochester viewpoint is clarified: longtime Rochester residents (insiders/ingroup members) possess positive traits while newcomers (outsiders/outgroup members) possess negative traits. As well, it becomes clear why longtime Rochester residents (insiders/ingroup members) stereotype newcomers (outsiders/outgroup members), considering them similar to one another, homogenous, and disliking them (see Baron and Byrne 1991; Taylor Peplau, and Sears 1997): self-worth in a changing community is restored. "Identity, status and rights " are maintained accordingly, just as Bell (1992) discovered in the exurban English community of Childerley.

To be sure, this us-versus-them or longtime-residents-versus-newcomers viewpoint is not Rochester's alone. A literature review suggests it is a typical viewpoint of rural communities in North America and Europe (Bell 1992; Davidson 1990; Flora et al. 1992; Jones 1995; Rayside 1991; Sim 1988; Vidich and Bensman 1958). It leads to a community-versus-the-world perspective discussed in Theme I as well as the hopelessness addressed later in this discussion. And it leads to the "communities within the community" deliberated by Rochester residents and termed "primary groups" in the Community Studies literature.

Theme IV shows that — small and closely-knit — communities within the community or primary groups provide the social interaction and friendship critical to individual well-being. This falls in line with previous studies in Social Psychology (see Taylor, Peplau, and Sears 1997) and Rural Sociology (see Rodgers et al. 1988). Additionally, Theme IV shows yet again that communities within the community exist and are isolated — and that their isolation obstructs community action. Briefly, the differentiation between longtime residents (insiders) and new residents (outsiders) creates communities of insiders and outsiders within the Rochester community and provides no bridge of communication between the two. According to research (Allen 1993; Bell 1992; Rayside 1991; Sim 1988;

Vidich and Bensman 1958), this differentiation is common to rural communities. According to Allen (1993), what results is misperception and tension that is a "barrier to community action." Without a doubt, his conclusion is echoed by Theme IV: Negative community attitudes and behaviours impede collective action.

Negativity Aimed Outward

Not only do negative community attitudes and behaviours in the Rochester community entail those aimed inward at fellow community members, but they entail those aimed outward at the world and at Rochester's role in it and impact on it. Clearly, the first type of negativity involves interaction within the community. The second type of negativity involves the community's concept or what the literature refers to as its identity, image, or "aggregation of individual perceptions into perceptions commonly held within the community as a unit (Borich and Korsching 1990, 7)." It entails frustration, pessimism, anxiety, apathy, and passivity. And it entails a perceived lack of control over change.

As with the first type of negativity — community negativity aimed inward — much can be learned about community negativity aimed outward by looking at the individual. For example, a perceived lack of control in the individual instigates emotional tension that manifests in anger, hostility, anxiety, hopelessness, helplessness, passivity, pessimism, and apathy (see Taylor, Peplau, and Sears 1997 77). This perceived lack of control leads to intense pain and stress as well, to a decline in performance, to a decline in health, and to an interest in obtaining information to gain control. Only the last reaction — interest in obtaining information — leads to the understanding that events are controllable (Baron and Byrne 1991; Gordon 1990; Taylor, Peplau, and Sears 1997); the other reactions — intense pain and stress, a decline in performance, and a decline in health — lead to a proliferation of the sense of no control and, thus, to a downward spiral.

Figured into this picture is what Social Psychology refers to as "locus of control (Rotter 1966)" or what Jacob, Bourke, and Luloff (1997) called empowerment. Empowerment is "the extent to which people perceive themselves as in control of events, reported Baron and Byrne (1991 510). A person who believes they control the positive and negative events of their life has an "internal" locus of control and is empowered. With a positive self-concept and an optimistic outlook (Taylor, Peplau, and Sears 1997), this person is more likely to try to influence outcomes and to resist pressures to conform (Baron and Byrne 1991). And they are more able to control their own lives and, thus, their futures (Taylor, Peplau, and Sears 1997).

On the other hand, a person who believes fate, luck, and often truly uncontrollable outside forces control their future has an "external" locus of control and is disempowered. They are fatalistic. Perhaps, suggested Baron and Byrne (1991), their fatalism arises from a longtime frustration from which there is no hope of escape. Regardless, however, it is associated with low self-esteem and a pessimistic outlook (see Taylor, Peplau, and Sears 1997). According to research (see Baron and Byrne 1991; Forgas 1985; Hilgard, Atkinson, and Atkinson 1975; Taylor, Peplau, and Sears 1997), low self-esteem leads to scape-goating, stereotyping, rationalizing, and apathy. A pessimistic outlook leads to an internalizing of negative events and to depression as indicated by anger, resentment, hostility, anxiety, hopelessness, helplessness, passivity, pessimism, despair, and apathy (Baron and Byrne 1991; Taylor, Peplau, and Sears 1997). Internalizing and depression (Taylor, Peplau, and Sears 1997, 78) lead to yet another downward spiral.

Moving from the individual to the community, Theme IV reveals that fatalism is alive and well at Rochester (Allen 1993). Residents collectively harbour a sense of no control, helplessness, and hopelessness. Like rural communities elsewhere (Davidson 1990; Hilgard, Atkinson, and Atkinson 1975; Levine and Perkins 1998; Sim 1988), the community harbours low self-esteem and a pessimistic outlook toward community control. More specifically, Rochester exhibits the scapegoating, stereotyping, rationalizing, and apathy that Social Psychology says arises from negative self-esteem, and it exhibits the depression and internalizing that Social Psychology says is indicative of a pessimistic outlook.

Without a doubt, Rochester's self-image falls in line with a "fatalistic community image" defined by Borich and Korsching (1990): a community in which it "is commonly perceived by community residents that they cannot bring about or affect change in order to control the future of their community" and where residents perceive change as harmful rather than beneficial. Moreover, Theme IV "Negative community attitudes and behaviours impede collective action" falls directly in line with the prediction Borich and Korsching (1990) presented that a fatalistic community image leads to "limited community action."

To summarize this data, Theme IV reveals that although Rochester residents applaud Rochester as a great place to live, the picture they paint is less rosy. Two types of negative attitudes and behaviours permeate the community. The first type of negativity is directed inward at other community members. It is a form of social control that demands conformity, directs community member behaviour, and limits collective action and, thus, planned change. The second type of negativity is directed outward at the world and Rochester's role in it and impact on it. It is a fatalistic self-image that reflects a proliferation of community pessimism, community submissiveness, and low community esteem. Consequently, it obstructs the instigation and execution of collective action and the achievement of community goals perceived important to a vibrant and vital Rochester.

10 SUMMARY AND CONCLUSIONS

> The future does not belong to those who are content with today, rather it will belong to those who can blend vision, reason, and courage in a personal commitment.
>
> Robert F. Kennedy

> For a change, let's do it first . . .
>
> Thomas Heberlein
> *Is Rural Better?*

In the previous two chapters, I examined residents' perspectives toward community change, challenges, and well-being, presenting results of focus-group analysis. Focus-group analysis revealed four emergent themes as central to Rochester residents. Chapter 10 now presents and discusses the conclusions that arise from those themes. Additionally, it presents conclusions that arise from the case study as a whole.

To be clear, Chapter 10 concludes the study *Residents Perspectives Regarding Community Change and Well-Being*. With Rochester's geographic, ecological, and sociological past — its "facts" or its "source (Rowe 1990)" — described and residents' perspectives explored, the reality of the Rochester community has begun to emerge. It is this reality that is the basis for planned social change. It is this reality — the reality of one small rural community amid transition — that provides a concrete example of what otherwise might be an abstract, nebulous, and overwhelming global predicament. And, too, it is this reality of the interconnection and interdependence between humans and the living planet and between the past, present, and future that provides a concrete example from which theory can be developed.

In the pages that follow, I integrate Parts One and Two of this dissertation. First, I summarize the case study's methods and results. Then, I present and discuss its conclusions, addressing the general research question and nesting answers to the subquestions within that presentation. Next, I present implications of research to the Rochester community and recommendations for the community as well. That completed, Chapter 10 moves on to the topic of planned social change. With research results as its basis and, thus, Rochester as a concrete example, I contemplate the theoretical and practical role that the Rochester community can play in planned social change, touching upon an ecological perspective of community development. Finally, I present suggestions for further study.

Summary of Methods and Results

When ecological problems are viewed as social problems, planned social change becomes the route to global well-being. In accord, this study examined the reality of a place where social change can begin — the rural local community. More clearly, it examined the "facts" and residents' perspectives of one small rural community amid transition.

Specifically, it explored the changes, challenges, and well-being of Rochester, Alberta, asking, What do Rochester, Alberta residents want for and from their community? It was a qualitative case-study design that employed multiple research methods and comprised two parts. Part One described the geological, ecological, and social history of Rochester, Alberta ("facts") and Part Two explored residents' perspectives.

The objectives of this study were the following:

1. to begin to understand the geologic, ecological, anthropological, and social history that shaped and continues to shape the Rochester community.
2. to begin to understand the Rochester community members' range of experiences and views about the region and community they inhabit.
3. to generate analytical questions, propositions, and hypotheses for further study at Rochester and elsewhere.
4. to begin to contemplate an ecological perspective of community development that would form the basis for social change toward global ecological and social well-being
5. to instigate thought, discussion, and interaction among Rochester community members about the changing structure, role and value of their community
6. to provide Rochester community members the opportunity to begin to gain a deep and comprehensive understanding of their community.
7. to provide Rochester community members a foundation of understanding from which a community vision and collective action can be established.

This study asked the general research question, What do Rochester, Alberta residents want for and from their community? Subquestions were the following:

1. What role does the Rochester community play in the lives of Rochester community members?
2. What do Rochester community members consider to be the ideal community?
3. What do Rochester community members consider to be their community's strengths?
4. What do Rochester community members consider to be their community's weaknesses?

While Part One of this dissertation described the geological, ecological, and social transformation that the Rochester region and community have experienced, Part Two explored residents' perspectives toward community change, challenges, and well-being. To do so, it employed three structured focus-group interviews to hear residents' views and experiences. These focus-group interviews were led by an outside moderator, comprised nine, 10, and 13 participants, and lasted approximately two hours. Questions revolved around Rochester strengths and weaknesses. Data included focus-group interview transcripts, interview notes, journal observations plus insights, and data-analysis reflections. The tape-recorded discussions were transcribed to computer and, then, analyzed for simple answers, historical information, and — via thematic content analysis — an in-depth understanding of perspectives.

Thematic content analysis involved numerous stages of analysis: open-coding data, grouping open-codes into (59) coding frames, clustering coding frames into (19) more-inclusive categories, interpreting categories into (four) themes , and, finally, discussing the themes' relevance to previous literature. The 19 categories or "topics of interest" encompassed a range of perspectives and experiences. I discussed these categories in detail in Chapter 8:

- the place
- the land
- financial stress
- opportunities, activities, and services
- central proximity
- daily stress
- community life
- backstabbing and the loose talk
- face-to-face interaction
- awareness
- active involvement
- family
- young people
- new people
- organizations
- communities within the community
- outside social forces
- local industry
- the forecast

The four themes that emerged from category patterns and linkages, encompassing the theoretical undercurrents of focus-group discussion:
I Rural living provides an ideal quality of life.
II Reduced opportunity for social interaction within the community reduces community cohesion.
III The contemporary rural lifestyle provides little opportunity to build roots.
IV Negative attitudes and behaviours impede community action.

Answers to the general research questions and subquestions were provided by the categories and themes emerging from content analysis, by the responses to informal questions asked throughout this study, and by my own personal observations, reflections, and insights.

Conclusions to the Research Question

What do Rochester, Alberta residents want for and from their community? Three conclusions surfaced, interrelated yet unique:

1. Rochester residents want opportunities of all kinds — economic, social, cultural, educational, recreational — within their community for all people of the community, and for youth and seniors, in particular.
2. Rochester residents want community control.
3. Rochester residents want meaningful relationships with one another, within their bounded community.

For their community, Rochester residents want economic, social, and ecological viability. *From* their community, residents want opportunities, interaction and personal relationships, and a voice in their future. In the contemporary fast-paced world, Rochester residents want the Rochester community to be a place where they matter, they make a difference, and they prosper. To them, this is the ideal community. This defines community well-being.

Community members value and want the gemeinschaft characteristics that Tonnies presented and that many sociologists downplay today. Despite current sociological contention that the gemeinschaft community never did exist and that local communities are gone or disappearing, Rochester residents define their community as an interconnection of friends, family, and place. Their appreciation for Rochester land and people induces them to live in the community, while their perception of an interconnection connects them to it. Indeed, resident's appreciation of Rochester assets — real or conceived — and their belief in a rural idyll bonds them together today.

Conclusion 1: Rochester residents want opportunities of all kinds — economic, social, cultural, educational, recreational — within their community for all people of the community, for youth and seniors in particular.

As Part One of this dissertation revealed, what we call Rochester today differs greatly from what existed decades ago and unimaginably from what was eons earlier. The geology has changed. The ecology has changed. The society has changed. Indeed, since its inception, the area we know as the Rochester community has undergone continuous transformation.

What exists today is just part of that transformation. First settled by Canadian and European settlers just after the turn of the century, the community of Rochester originated as Ideal Flats, an isolated and relatively autonomous farming community. It was a tiny town in the boreal forest, snuggled deep in the Tawatinaw Valley. Built on the Athabasca Landing Trail leading north to the fur-trading post of Athabasca Landing, it soon became a whistle stop for the train connecting Athabasca and the outside world and, later, a dinner stop for truckloads of U.S. soldiers travelling the Alaska Highway. Nearly every quarter-section of land supported immigrants struggling to make a living, men and women who earned too little cash to be wealthy or certainly too little cash to leave. As time passed, land was cleared, crops were planted, roads were built, and a reportedly close-knit society evolved. A vibrant community of established and extended families developed. Residents shared interests, ideologies, and values, and participated in neighbourhood-centred activities that ranged from evening visits to autumn harvests to help in time of crisis.

Then came Highway Two five kilometres west of town, and machinery, mechanization, and communication. The Rochester community transformed. With the arrival of the Canadian National Railway, Ideal Flats had become Rochester; and with the arrival of Highway Two, Rochester became a "stop-off centre (Zimmerman and Moneo 1971)." No longer was Rochester imperative to resident survival and prosperity. Having transportation and some money, community members could now drive to larger business centres to address needs and desires — and, consequently, Rochester's economic vitality and social interaction declined. At the same time, fields cultivated by machinery grew large. Crops fed by chemicals grew bountiful. Farm size increased. Labour requirements dropped. Young adults looked to the city for work; families moved away, and some new people moved in. Over time, Rochester transformed into a community of diverse cultures, occupations, experiences, ideologies, attitudes, and values.

Today, Rochester comprises farmers and commuters, longtime residents and newcomers, permanent inhabitants and transient dwellers, college educated and informally educated, community participants and noncontributors. Today, residents live in Rochester because they *want* to — no longer because they cannot leave Rochester and are "stuck" there. They value and choose to live amid the people, the natural landscape, and the small-town atmosphere that they perceive Rochester to harbour and only rural living to offer. Today, it is for this quality of life that many newcomers have come and that most people stay. Of some concern is the community's declining ecological health. Of some concern but little personal significance to them is the town's failing economy.

Instead, as this study shows, Rochester residents focus outward. Some people travel 100 kilometres away — daily — to meet their contemporary needs. At Edmonton and the closer business centres of Westlock and Athabasca, they earn money, spend money, and ensure their children's advantage in a competitive modern world. There, where prices are cheaper, selection greater, and opportunities more diverse, Rochester community members purchase and play. To bright lights they gravitate as young adults; to immediate conveniences they turn when old. And all the while, away from Rochester, they make friends and sometimes associate with other Rochester residents who also are striving to fulfill needs, demands, and desires. Except to check the mail, visit the school, drink a beer or coffee, and purchase convenience items, Rochester community members rarely interact within Rochester and even more rarely interact face-to face with the community as a whole.

Briefly, the rural lifestyle that Rochester residents treasure is a lifestyle very different from that about which they romanticize. In fact, the rural lifestyle that they live is a lifestyle dependent upon populated centres for supplies, services, and opportunities. According to this study, it is a self-reliant, self-centred, mobile lifestyle, physically and socially removed from neighbours. Residents are focused on acquiring more, getting the best deal, providing for one's children, and making ends meet. A single episode among three residents exemplifies new rural living: one person flew to Inuvik for work, one person drove to Athabasca for her children's swimming lessons, and I left for the city to visit the University of Alberta library. Although residents claim Rochester living beats city living, the rural rat race is on. Urban values beckon. Material and status competitiveness thrives. And Rochester residents commute endlessly to pursue the economic, social, cultural, educational, recreational, and entertainment opportunities that their community does not furnish.

But, indeed, that is the story of rural society.

What is news, however, is the stress that rural commuting entails. Although — especially at first — Rochester residents take commuting in stride, this study reveals they find eventually it takes an emotional toll. Despite claims that Rochester offers the ideal quality of life, residents want to slow down and simplify. They want to re-evaluate. They want to relieve the emotional and financial strain that commuting entails, to check the time, energy, and money drain. They want to drive less and relax more. They want to spend less money, time, and energy away from home and more time and energy with their family inside of the community. They want to experience, enjoy, and participate in the small-town mystique they've chosen; they want to experience and enjoy the natural world they value. In short, results of this study indicate that Rochester residents want the opportunities, activities, and events they now chase endlessly to be available in the Rochester community.

What do Rochester community members want for and from their community? They want opportunities of all kinds — economic, social, cultural, educational, recreational — within their community, for all people of the community, for the young and elderly in particular. In their most ideal of ideal rural communities, they would enjoy fun, healthy, and perhaps educational opportunities that provide contact with their children, activities for their youth, jobs for their residents, and face-to-face contact with their neighbours, all within their specific and bounded community. They want affordable opportunities. They want convenient opportunities. They want meaningful opportunities. In the process, their children will be happy, stimulated, and safe, they believe; young adults will return home after experience and education elsewhere; and new residents and the elderly will stay.

This conclusion sheds new light on the academic view of rural mobility. To be sure, it highlights the problems that mobility has brought to the economic well-being of rural communities. As well, however, it reveals the problems that mobility has brought to the *psychological* well-being of rural communities. For according to this study, mobility wears out individuals and consumes their urge and ability to be part of a community — a consequence apparently not considered in the literature. And, too, mobility prompts outside interaction, relationships, and ties and weakens community support, cohesion, and commitment — consequences addressed but not probed by rural sociologists (e.g. Wilkinson 1991).

In fact, nowhere did I find research probing the negative connection between commuting and psychological well-being. Certainly, research in both Rural Sociology and Geography has addressed rural *commuting*, contemplating its demographics, benefits, and — at most — "inconvenience." And research in Rural Sociology has examined rural *stress*, considering community economics and the farm-crisis particularly. But from my literature review it appears that stress associated with rural commuting is an unexplored topic. Even the field of Community Psychology apparently fails to single out commuting as a root cause of rural-community stress.

"But What Can You Do?"

"But what can you do?" is the inevitable sigh.

To be sure, a sense of helplessness and a sense of hopelessness permeate the community. In light of the abundant and sensational activities, opportunities, resources, and talents elsewhere, a Rochester inferiority complex exists — and residents accordingly dismiss local ideas and abilities. Moreover, a lack of creativity exists. Where once there was a strong sense of ability and pride, people now look to places far away rather than asking what Rochester intrinsically offers. They suggest Rochester create a western frontier image or a golf course overlooking the valley, for example.

People look to the past for answers regarding the future. Recreational activities once provided fun, frolic, and entertainment and represent simpler times — and, consequently, residents turn to them now. Wanting to solve contemporary problems with yesterday's practices, they offer sports — baseball and curling, in particular — as a panacea.

But as Part One of this research project clearly shows, time brings change — and change signifies a unique set of circumstances. While, indeed, effective solutions to Rochester's problems do require an understanding of the past, they require a vision for the future as well. They therefore demand innovation. They therefore call for creativity in both the generation and the execution of ideas, self-confidence, and positive attitudes and behaviour.

Effective solutions to Rochester problems therefore require that the Rochester community change its self-image.

For, indeed, Rochester is a fatalistic and disempowered community. Residents have watched it decline from what was a vital vibrant community to what they consider an economically failing and socially indigent community. They have watched it dwindle from what was an autonomous self-sufficient community to what they see as a globally insignificant community. They have experienced a lack of personal control over their community's well-being and their own individual lifestyles. Consequently, collectively, they are disenchanted.

Consequently, they harbour a collective sense of hopelessness about their community's future. They harbour a collective sense of cynicism about their voice in community decision-making. And they harbour a collective sense of pessimism about their ability to compete against external forces. What's more, in spite of — or perhaps because of — their fatalistic community image, collectively they are content. They share a sense of satisfaction with their lifestyle, wanting and trying to believe it's ideal. Should doubts surface, they turn to the city to demonstrate the rural difference and superiority.

Conclusion 2: Rochester residents want community control.

Clearly, results of this study indicate that Rochester residents feel demoralized. They feel frustrated and angered by "self-serving" governments and "powerful" corporations that they see as manipulating their options, exploiting their environment, and disregarding community well-being. They feel frustrated and angered by community politics that they see as instigating pain, squelching enthusiasm, and limiting their voice in community decisionmaking, activities, and events. Except for their recognition of the beauty of the Tawatinaw Valley, they dismiss community resources, talents, and ideas while respecting the talents of people away, the beauty of landscapes away, and the opinions of outside experts. Collectively, they harbour a sense of inferiority — although social comparison to perceived worse-off communities provides reassurance. Collectively, they feel small and inadequate, retaining little self-esteem, little self-respect, and much passivity. In short, both in the local community and in the world, Rochester community members collectively perceive themselves as vulnerable and powerless and their impact on the future as ineffective.

Think globally, act locally? To the Rochester community, it is an almost laughable adage.

But despite the community's self-image, Rochester residents *do* want a role in their community's future. Despite their collective sense of contentment, hopelessness, apathy, cynicism, and passiveness, community members *do* want a say in Rochester's ecology, economy and social well-being. On one hand, as a whole they possess an inferiority complex; on the other hand, they feel possessive and proud of Rochester. On one hand, as a whole they perceive their community's assets insignificant compared to those elsewhere; on the other hand, comparison to worse off communities tells them Rochester is second to none. Based on their appreciation for the rural lifestyle they experience, based on their idealization of gemeinschaft characteristics, based on their concerns for their children's well-being, their discomfort with the complex and nebulous global society, and their uncertainty about local and worldwide ecology — based on all of these reasons, Rochester residents want to ensure their community's well-being.

In their most ideal of ideal worlds, residents would revitalize Rochester's economy and society and — at the same time — retain its healthy environment, scenic beauty, and natural ecology. In their most ideal of ideal rural communities, they would make decisions collectively, work collectively, and forge an economically, socially, culturally, spiritually, and ecologically healthy community that offers jobs as well as other opportunities. In their most ideal of ideal rural communities, they would profit financially as well as psychologically from community well-being — not just today but in generations to come.

What do Rochester community members want for and from their community? They want community control.

"But What Can You Do?"

When, however, community members do throw out innovative concepts for community control, they do so with little information about the applicable economics, administration, operations, and maintenance. Assistance is not obviously available or easily obtained; thus, residents are generally unaware of other communities attempts for community control, uninformed about outside assistance, and suspicious of government aid. This lack of understanding and limited communication restricts the flow of information, ideas, enthusiasm, and energy needed to resolve Rochester problems. Moreover, it fosters mistrust and cynicism directed both inward and outward. The future does not lie in government support, outside ownership, or heavy industry residents are certain — but how it lies in Rochester resources no one knows.

It is in small groups and one-on-one conversations that community members talk about community control. They stress their desire for a healthy natural world in combination with a healthy diversified economy that is owned, managed, and operated by local people. Specifically, they have suggested the introduction of community entrepenuerships and community profits: a community saw mill and a community hemp processing-plant, for instance. They have suggested such "green industry" activities as selective logging and such year-round tourism activities as cross-country skiing, snow-mobiling, sleigh riding, horse-back riding, bird-watching, and establishing more bed-and-breakfasts. Urgent social needs have instigated additional ideas. For example, seniors' housing-needs have incited suggestions of a Rochester senior's home (Five of the 10 elderly focus-group participants now live in Westlock seniors' lodges, fewer than two years after interviews.), and teenagers' entertainment- and recreation-needs have incited talk of a youth centre.

But there the ideas stop.

For although, collectively, Rochester residents want to decide their community's future, individually, no one person is willing to be the first to instigate action and certainly few individuals are willing to provide much energy or time. Only some persons offer enthusiastic support; just a few persons want to get actively involved; and still fewer persons want to spend money to, for example, buy local but more expensive products. And virtually no one in the Rochester community wants to initiate or guide action.

Without a doubt, the Rochester community lacks leadership

In Orr's (1992) words, Rochester is occupied by "residents" not "inhabitants." Rochester community members are too detached to instigate collective action and too overwhelmed to participate in community activities. In my evaluation, Rochester is occupied by followers not leaders or initiators, by people too self-conscious to make waves and too insecure to "do it first." Furthermore, Rochester community members are victims of the social control inherent to rural communities that Simmel first described. One day, a resident may be among the backstabbing "they" who hurt and obstruct creative others; the next day, that resident may be victim of a verbal attack. The discouragement that ensues versus a devil-may-care attitude restricts Rochester's betterment in the process. For as people worry, deny, backstab, and race to get ahead, the gas pump is shut down, the grocery store goes on the market, the hardware store gets listed, and the hotel changes hands.

Conclusion 3: Rochester residents want meaningful relationships with one another, within their bounded community.

In spite of Rochester's paralyzing self-concept, this study reveals that residents not only want community opportunities and community control, but they want relationships with one another. Despite their collective sense of pessimism and cynicism, they still believe in the rural idyll. And they still want Rochester to offer the gemeinschaft characteristics they envision rural living — and Rochester, in particular — to harbour. In their ideal of ideal communities, Rochester residents experience face-to-face contact with each other, within the specific and bound space of the Rochester community, within Rochester as a "place."

To be sure, this study revealed the fundamental problem facing Rochester as well as the fundamental solution addressing it: community interaction. Themes of this study illustrated that one-on-one interaction is fundamental to the sense of community. Face-to-face contact with the people of the community as well as hands-on interaction with the land of the community is the foundation of community well-being. (Hands-on interaction with the land is the experience of seeing, touching, smelling, hearing, and tasting the natural world, as well as efforts to learn its natural history.) For example, Theme II revealed that social interaction has declined over time and, with it, community sentiment — the sense of community attachment, belonging, cohesion, and commitment. Theme III revealed that contemporary living reduces opportunities for experiencing both the people and the natural world and, therefore, weakens roots important to community sentiment and permanent settlement.

What do Rochester, Alberta residents want for and from their community? They want meaningful relationships with one another, within their bounded community. This I consider a remarkable conclusion in light of the sociological context in which this study was undertaken: humans — rural residents, for the purposes of this study — are losing touch with each other and with the land.

More clearly, of the four themes that emerged from thematic analysis, all centred on interaction and relationships:

I Rural living provides an ideal quality of life.
II Reduced opportunity for social interaction within the community reduces community cohesion.
III The contemporary rural lifestyle provides little opportunity to build roots.
IV Negative attitudes and behaviours impede community action.

Theme I focused on the positive quality of life that social interaction and relationships in the Rochester community provide. Theme II focused on the lack of social interaction and, thus, meaningful relationships that Rochester residents have with each other and with the land today — and on the resulting lack of community solidarity. Theme III focused on the role that both face-to-face interpersonal interaction plus its antecedent relationships and hands-on interaction with the land plus its antecedent relationships play in forming community roots. And Theme IV focused on the damage that negativity incurs on interpersonal relationships, community sentiment, community settlement, community action, and, ultimately, the community's future.

But that is an overview.

A closer look reveals the value that Rochester community members place upon local relationships. It is amazing to me that although negative attitudes and behaviour proliferate in Rochester today — hurting individuals, damaging community solidarity, impeding the ability to work collectively, and, ultimately, limiting the potential for collective action just as Allen suggested (1993) — fellow residents still want to rub elbows. They still appreciate the face-to-face contact they have with their neighbors. Taking pains to overlook local problems, they idealize Rochester as being what Tonnies referred to as "gemeinschaft."

But a gemeinschaft community is a theoretical ideal. Nevertheless, it is an ideal about which seniors reminisce and that younger residents realize in glimpses and stories. With one foot in the past and one foot in the future, Rochester residents live a new rural lifestyle today. It is different from the past they are sure, and different from the city they are certain. Although they insist it is a superior quality of life, they do, nonetheless, perceive something amiss. The seniors know it's amiss and are concerned but resigned, retaining a sense of civic duty and maintaining what they can in their own community. The younger people realize that *something* is lacking and just want it back.

What this study reveals lacking is community interaction, neighbourhood friendships, community acquaintanceships, social support, community solidarity and sense of community responsibility, duty, and commitment. In this way, this study reflects previous research that shows community ties and thus attachment are in decline.

"But What Can You Do?"

At Rochester, no one knows how to get back the interaction of the past — how to regain neighbourhood friendships, community acquaintanceships, social support, community solidarity and sense of community responsibility, duty, and commitment. The seniors say it can't be done; we can't go back; the times are changing and so must we. The younger people don't know where to begin. Nonetheless, in their most ideal of ideal communities, the Rochester community offers interaction opportunities with one another.

But, today, time is money; and money is the basis of contemporary society. Rochester residents are too mobile, too competitive, too self-reliant, too self-absorbed, and too entangled in modern-day demands to instigate or join in community activities — unless they have an individual need. Residents are too busy, too tired, too stressed out, too discouraged, and too intimidated to become actively involved — unless their children have a personal need. Drawing time from other pursuits, social interaction requires an investment that will pay off in the long-term but — in light of the contemporary rural lifestyle — such interaction is perceived exorbitant in the short-term.

Implications of Research to the Rochester Community

A sense of fatalism versus a will for community control; the pain of negativity versus the gratification of social involvement; the aversion to gossip versus the desire for social interaction; the damage of negative interaction versus the benefits of social interaction: Rochester is a community of extremes. There are the experiences residents know: past versus present, country versus city, Rochester community versus other local communities, the local community versus the virtual community. There are perspectives residents hold: us versus them, newcomers versus long-timers, competition versus cooperation, hopelessness versus optimism, creativity versus conventionality, aversion to change versus push for change, fear of backstabbing versus desire for interaction, and no community potential versus all the potential in the world.

Extremes in experiences and perspectives permeate the Rochester community. A full range of ideologies, values, attitudes, and opinions exists. Add to these the wide-range of occupations, lifestyles, experiences, education, and length of residence within Rochester and it is clear that the only thread linking residents is their belief in the Rochester mystique. Residents no longer are connected by a common purpose or vision but instead by their illusion of the good life.

But that good life is a new life. The contemporary rural lifestyle is a new rural lifestyle, with an ever-changing economy, society, and countryside. Still, however, traditional views hang on.

More specifically, there still exists a lack of tolerance for deviation from the status quo. At Rochester where diversity thrives, community members demand homogeneity. Those social controls that ensured conformity, homogeneity, cohesiveness, well-being, and survival yesterday, foster divisiveness and fragmentation today. As this study indicates, such social controls hurt and antagonize residents and limit their desire and ability to work together.

Collectively, Rochester residents fail to recognize the value of their community's diversity. For the most part, they fail to appreciate the awareness, knowledge, and skills that a range of cultural backgrounds, values, and world views deliver — the insights and experience that diversity brings. It is no surprise that persons with different ideas sometimes feel unwelcome in the community. It is no surprise that persons involved in community activities sometimes feel uncomfortable. Consequently, it is no surprise that, at Rochester, community well-being requires more than simple fantasies about the rural idyll.

Indeed, results of this study indicate that, at Rochester, community well-being requires real work. Community well-being requires hospitality on the part of long-time residents and commitment on the part of all residents. It requires time, energy, and sense of acceptance -- acceptance of newcomers and acceptance of change. It requires a positive attitude, positive behaviour, self-esteem, empowerment, and leadership as well.

How do these results fit into the academic literature? A review revealed a confusion and lack of agreement surrounding community-well-being. Various terms have been used to define the state of community well-being. Researchers have written of a "healthy" community (Lackey, Burke, and Peterson 1983), a "good" community (Sanders 1953; Kaufman 1966; Warren 1970)," a "viable" community (Schoenberg and Rosenbaum 1980), and a "competent" community (Glick 1983; Iscoe 1974; Levine and Perkins 1997). Wilkinson (1986; 1991) wrote of community "well-being." Although research terminology differs, however, consensus regarding the necessary components of community well-being exists. Researchers agree that a healthy community contains the following attributes (Lackey, Burke, and Peterson 1983):

1. local groups with well-developed problem-solving skills and a spirit of self-reliance.
2. a broad distribution of power in decision-making, commitment to the community as a place to live, and broad participation in community affairs.
3. leaders with community-wide vision and residents with a strong sense of community loyalty.
4. effective collaboration in defining community needs and the ability to achieve a working consensus on goals and priorities.

5. citizens with a broad repertoire of problems solving abilities who know how to acquire resources when faced with adversity.
6. commitment to the community and a government that provides enabling support for the people.
7. a formal a or informal mechanism for exchange among conflicting groups.

Clearly, results of this study concur: the above attributes are important to community well-being. Furthermore, results indicate that Rochester contains few of those attributes and, as a result, leans toward being a community of ill-being or poor health rather than one of well-being or good health. A healthy community, wrote Lackey, Burke, and Peterson (1983) is

> one in which the members have a positive self-image. They have a "can do" attitude, coupled with a realistic sense of their own capability. The value structure stresses the inherent dignity and equal rights of all persons. It fosters freedom of thought, participatory democracy and democratic decision-making. Healthy community citizens possess the knowledge and skills necessary to perform the tasks related to the community development functions of needs assessment, goal setting, planning, implementation, evaluation and conflict resolution. Healthy communities have community-wide or neighborhood-wide organization structures and leadership capability which permit those who want to participate in community affairs to do so.

At present, the Rochester community offers little opportunity for residents to attain their ideal community. Although Rochester residents *want* opportunities of all kinds for everyone, interaction and meaningful relationships, and a voice in their community and its future; although residents *want* to matter, make a difference, and prosper, there currently is little chance to do so. Without the components fundamental to community well-being, there is no community well-being. Without community well-being, there is little opportunity to work collectively and successfully toward a community of choice. Without collective action there is no planned social change -- and there is little hope of resolving ecological and social problems, locally and, thus, globally.

In short, community well-being lies at the root of global well-being. And individual well-being lies at the root of community well-being (see Wilkinson 1986; 1991). As a result, individual needs must be addressed.

Although needs differ from those of the past, they are needs basic to human well-being, nonetheless. They include the psychological needs inherent to what one resident called Rochester's "quiet crisis" — that is, the basic needs of social interaction, social relationships, and social support. In the view of Zimmerman and Moneo (1971), it is in the tiny community where rural residents' psychological needs must be addressed. Rochester and other stop-off centres play a vital role in providing their residents the face-to-face, meaningful, and lasting relationships necessary to human well-being, they wrote — unable to sufficiently address economic needs within the "prairie community system" but necessary to the address of psychological needs.

Clearly, then, Rochester is missing the boat. But according to Levine and Perkins (1997), community action builds community well-being. That is, when Rochester residents begin to work collectively toward a common goal they will begin to develop the power, knowledge, and self-esteem necessary for community control. The interaction and relationships they value will be fostered. That they matter and can make a difference will become evident. When Rochester residents work together toward their ideal community they will take the first step toward becoming a community able to determine and to develop a future of its choice.

It sounds idealistic and perhaps simplistic. But what appears idealistic will become realistic when Rochester residents define a community vision and break that vision into concrete goals, projects, and steps. What appears simplistic will take on meaning and value when residents revolve community efforts around community-declared needs. It will be when Rochester residents work collectively one step at a time that community well-being will become possible, measured by attitudes and values, capabilities, organization, and leadership (Lackey, Burke, and Peterson 1983).

At Rochester, well-being will begin with a concrete opportunity for interaction. Although, certainly, business ventures are fundamental to addressing economic needs, a prerequisite step in this community of poor health is required. That first step entails making the Rochester community feel like a community again. In other words, a meaningful opportunity is required for face-to-face contact contact that is central to the very definition of community. When residents establish an opportunity to work collectively toward a common goal, they can create what one resident called the "safe crisis" within this fractious community — a happening around which all residents can rally, interact, and become acquainted.

What concrete opportunity for interaction specifically would suffice? What social interaction specifically would be required? Final steps of research uncovered an effective opportunity for social interaction, while Rochester residents themselves outlined the necessary components that it must entail.

A Strategy for Social Interaction

What Rochester residents said they want is meaningful, affordable, fun, and rewarding social interaction. They called for respect, communication, and consultation. They appealed for cooperation rather than competition. They considered community awareness, input, and participation mandatory and an understanding of and consideration for social and natural history critical.

Moreover, research results indicate that during every activity of every project, the community must listen to and involve all age groups, from the children to the elderly. It must actively involve all community members of every social stratum, occupation, and duration of residence. Furthermore, whenever possible, it must encourage cross-generational involvement. From the persons to whom Rochester owes its existence — the seniors — residents can learn about accomplishments, problems, community sensibility, and community responsibility. As one eightyplus-year-old inhabitant said, only the seniors know the community as it was and only the seniors can teach firsthand about "community" — "before it's too late, before we're all gone."

Not only must young and old mingle, however, but residents' needs must be addressed. For example, seniors need their sidewalks shovelled, their minds stimulated, their knowledge utilized. And youth need entertainment, recreation, and money. An obvious opportunity exists, said one citizen: why not create a community-based resident-funded youth service for the elderly? For it will be when residents together pinpoint and actively address individual and collective needs that community participation, commitment, solidarity will increase (see Levine and Perkins 1997; Lu 1997; Mercier and Powers 1984; VanderZee, Buunk, and Sanderman 1997).

A Concrete Opportunity for Social Interaction

But what kind of opportunity for community interaction is required at Rochester? It was during the final days of this dissertation that the answer came to me. It arose while photographing the Rochester community for my doctoral presentation at the University of Alberta. For at that time, I realized that the very act of taking pictures prompted unequivocal enthusiastic discussion regarding Rochester's plight and future. Both the residents being photographed and the residents doing the photographing were drawn yet again into this study. Laughter, interest, conversation, and camaraderie ensued. A sense of pride in the community and ownership in the presentation seemed to transpire.

From persons being photographed, my explanations of a university presentation about this Rochester study incited, "When!?" Some residents expressed interest in attending. Elderly residents reminisced about Rochester's past and present. Younger persons offered views of the present and future. Moreover, my suggestions that I provide a community slide-presentation reporting my results instigated "Good idea!" "I'd love to come. Just let me know when." and "Is there going to be a book?"

From the photographers who helped me came report of increased awareness about the Rochester community. Photographing the community required that they look at the land and the people. It made them consider special places, contemplate the past and the present — physically, historically, economically, and socially — and talk about the future. "I felt very sad," a photographer said, adding she'd never before realized how downtrodden Rochester had become. In-depth discussions ensued about the future of rural communities and Rochester especially.

In short, the experience underlined for me the truth in my above statement

> At every activity of every project, the community must listen to and involve all age groups, from the children to the elderly. It must actively involve all community members of every social stratum, occupation, and duration of residence. Furthermore, whenever possible, it must encourage cross-generational involvement.

It became clear to me that a slide presentation would offer a concrete opportunity for social interaction — a slide presentation that itself would be collective action. My purpose to share research results could provide a meaningful goal — a purpose — around which Rochester residents could rally. To ensure full community interest, it would entail full community participation — be it as photographer, photographee, owner of a photographed farm, or daughter of a photographed man. To ensure full participation, from onset to finish, it would include the social action process I used successfully in my focus-group recruitment and described in Chapter 2. Moreover, the slide show should occur soon, in winter when nights are long and days are slow. And it should be a community event, held at the community hall and embracing residents' additional ideas.

Most importantly, however, it would follow the strategy for interaction offered above: it would be fun, doable, affordable, and rewarding, both before and during the presentation. *Before* the slide show, social interaction such as that I experienced while preparing my doctoral presentation would occur. *During* the slide show, more interaction would transpire, with residents again rubbing elbows while listening to research results and sharing experiences and memories. In this way, communities-within-the-community would come in contact and residents could renew their connections to one another and to place. A new awareness of residents and new interest in Rochester's future would be sparked, I predict, and consideration, discussion, or perhaps even determination of a next step would unfold.

Establishing a Park Provides Interaction

The next step at Rochester might entail simply another opportunity for social interaction — for planned social change is slow. Along with social interaction, however, the next step must entail a concrete and community-instigated goal and a concrete process to reach that goal. It might, for example, entail the development of a downtown park that many residents proposed.

After years of giving it thought, how do Rochester residents begin building a park today?

They begin by breaking down their goal into projects. With the establishment of a Rochester park as the first community goal, for example, Rochester residents could set out to purchase the necessary land. More specifically, the land along the east side of the Tawatinaw River is for sale, while the mowed and vacant green area on the west side belongs to the Lion's Club. The purchase of the east-side land could constitute the first community project, and the acquisition of funds could constitute the first concrete step of that project.

Perhaps — suggested one resident — a community auction could secure funds. "Everybody has SOMETHING around their place to sell," agreed another. Together, Rochester residents could sell antiques and other items. Affordable. Doable. Local. Strictly-community assets would be utilized. Local residents could prepare and hold the auction, encouraging the participation of all community members, of every age and interest. In this way, everyone's interest would be encouraged, everyone's knowledge and talents could be employed, a sense of ownership could be fostered, and community discussion could be stimulated. While people worked collectively toward a common purpose, a great deal of fun could be had. From the auction itself, the community could earn a great deal of money — making the project an immediate success and resulting in community buy-in.

On to the second step of purchasing the land for a Rochester park. This step might entail the actual purchase of property and might involve such decisions as, What group will purchase the land? Is a new community group required? If so, what will the group do, how will it be organized, who will form it — and how will all of that be decided?

With the park land acquired, residents then could turn attention to other projects their goal of a park encompasses. Perhaps a sign acknowledging the community's fund-raising effort could be erected — a sign built by Rochester School students from community horse-logged timber? Perhaps park benches and picnic tables could be built — park benches built by Rochester School students and seniors together? Perhaps walking trails for the elderly and a walking bridge across the river could be constructed? How about planting trees and building a stage for plays and local music? What about a bulletin board with news of local events, community concerns, and group meeting-dates and decisions? These are residents' ideas that would foster a sense of ownership, confidence, optimism, pride, and self-respect.

Provide Other Opportunities for Interaction

There are other opportunities for one-on-one interaction that have been proposed. There is, for example, the development of a community gathering centre, built according to the strategies above. Here, maps of all sorts and photographs of the past and present community could hang. Here, information about community development opportunities and successes, business administration, and local businesses could be located. Novels could be found. Community checker-tournaments (parents versus kids) and cribbage (mixed teams of seniors and youth) could be played. People could enjoy fresh baked goods, organic foods, juices, and good coffee for donation, while popcorn would always be free. From this social centre, residents could make free local telephone calls, hold free formal and informal meetings, print and distribute a local newsletter to link communities-within-the-community, or perhaps operate the proposed community radio station.

There have been additional ideas as well. Addressing the needs of the young people, the development of a youth-built and youth-operated youth centre has been proposed. Addressing the need to understand and to share Rochester history, there also has been the suggestion for a Rochester museum. Moreover, residents have suggested the creation of an art club, a book club, and — to exorcise stress, exercise the body, and explore the land — a Rochester walking club. Ideas are limited only by imagination.

Action is limited by busy schedules, tired residents, resistance to change, negativity, disempowerment, and lack of leaders and initiators. But using ideas uncovered by research and taking social change one step at a time, Rochester residents could make their community the refuge they want it to be. They could make it a place where they matter, where they make a difference, and where, perhaps with time, they prosper. Perhaps, then, they could reach out to work *with* rather than *against* other communities, acting locally, networking regionally, and thinking globally.

Develop Economic Opportunities

Not only are opportunities for social interaction crucial to Rochester's well-being, but local businesses are important as well. Local businesses address economic needs, bringing self-sufficiency to a community and — when they address perceived needs — bringing social interaction as well. More specifically, local businesses that provide affordable goods and services reduce the need to commute to opportunities elsewhere and draw residents back into Rochester, circulating money within the community and increasing resident contact. Furthermore, they provide jobs. In short, they provide a reason to come to Rochester. In brief, they increase the propinquity needed to establish social and land connections, and they increase the time, energy, and often money required to participate in community activities. An increase in familiarity, common experiences, and similarity in Rochester would result in an increase in understanding, compassion, and support — which, ultimately, would result increased community identity and unity.

Already, Rochester community members have suggested establishing a laundromat, a collectively owned general store, a collectively owned hemp processing-plant, and a collectively owned sawmill as well. Residents have proposed establishing a downtown farmers market as well. And, too, they have suggested opening a rustic non-smoking cafe open for supper (built by local people from local materials), prompting one Athabasca resident to note that even outsiders like herself would come to Rochester -- always looking for a quaint and good place to eat. Indeed, any one of these economic ventures would provide reason to come to Rochester and, as the old-timers say, "to associate."

Implications of Research to Global Well-Being

I began this dissertation with a brief summary of our planet's ecological and social conditions. Global ecological and social problems require innovative solutions, I stated, proposing planned social change as the basis for resolution. When we view ecological problems as social problems, I wrote, then social change becomes the obvious route to global well-being — and that social change must come from the local community (see Wilkinson 1986; 1991). It was in this way that I set the context for the case-study *Rural Residents' Perspectives Regarding Community, Change, Challenges, and Well-being*. Now that research is completed and conclusions put forth, the question becomes, SO WHAT?

1. How do results of this study help to resolve the planet's ecological and social problems?
2. What is the implication of research results to a theoretical perspective of global well-being?

How Do Results Help to Resolve the Planet's Problems?

Results of this study reveal that the world today is perceived to be a fast-paced world marked by individualism, isolation, competition, and stress. Offering no guarantees, it provides no certain future. At Rochester, Alberta, people feel generally overwhelmed and concerned about the future and, at the same time, disempowered. Searching for answers, they have turned to rural living — to the perceived good life of a healthy environment, scenery, and nature, of caring helpful neighbours, and of supportive family.

According to this study, however, rural living does not present the easy answer residents seek. Research results indicate that although people *want* a slower and simpler lifestyle, they don't want to let go of the opportunities, goods, and services they currently know. Results indicate that although people *want* meaningful relationships within their community, they don't want to invest the time and energy that friendships require. Results reveal that although people *want* community control, they don't want to accept or address community problems. Indeed, research results reveal that rural community living and rural community well-being are not one in the same. At Rochester, the components that the Community Development literature puts forth as fundamental to community well-being are missing.

To be blunt, research results reveal that Rochester residents collectively harbour a self-serving outlook. They want it all — and they want it without their individual expenditure of time, effort, or money. Their outlook is entrenched in the industrial paradigm, with little push for a simpler, more ecologically-sound, more self-sufficient lifestyle. Their outlook entails pursuit of an increased quality of life without a reduced standard of living. Based upon consumption and without regard for the ecological and social impacts that their actions incur, Rochester residents still want more and better.

But if people will not accept responsibility for their actions at the community level where problems and solutions are most concrete, what hope can there be they will tackle more nebulous global problems? If residents can't address immediate needs in small first-world communities, what hope can there be they will help to address third-world needs? It is the local community where people can begin to regain control of their future, I declared at the beginning of this study. If in the local community, residents cannot experience first-hand the intimate meaningful personal relationships necessary to good health, if residents cannot measure the difference their presence makes, if residents cannot enjoy a sense of belonging, experience a sense of place, see and acknowledge their impact on the land and their associated responsibility, and if — above all — in the local community, residents cannot effectively participate in decisionmaking, make educated and meaningful choices, receive political accountability, and regain control of their future, then what hope is there that there can be ecological and social well-being at the global level?

These are concerns provoked by this study. They underline the need for an ecological perspective of community development. Results of this study indicate where it should begin.

Where Does an Ecological Perspective of Community Development Begin?

As I explained in Chapter 2 Research Design and Methods, generalization to a theoretical perspective is a perfectly satisfactory application of the case-study design. In accord, generalization to a theoretical perspective of rural community well-being and global well-being is a perfectly suitable application of this case-study of Rochester — and, in fact, is a listed objective. But there is no formal theoretical perspective in the field of Community Development. Although ideas circulate both in the popular literature (see Berry 1996; Maser 1997) and in the academic literature (e.g. Wilkinson 1991; Chodorkoff 1992), insufficient address of an ecological perspective of community development exists.

Where would an ecological perspective of community development begin?

It would begin with the acknowledgment that local community well-being is fundamental to global well-being. Community well-being entails collective self-esteem, knowledge, and power (Iscoe 1974; Levine and Perkins 1997) that, together, pave the way for successful collective action toward a large vision and specific goals. In turn, successful collective action leads to improved individual well-being -- greater prestige, improved self-image, more self-confidence, greater self-acceptance, and an increased sense of investment in and protection of the community -- which leads to fewer social problems and anti-social behaviour (Lackey, Burke, and Peterson 1983; Leighton and Stone 1974). Briefly, from local community well-being comes the potential for planned social change.

Fundamental to community well-being is community interaction. An ecological perspective of community development would acknowledge the value of face-to-face interaction among residents in creating interpersonal relationships, social bonds, social support, and solidarity. It would acknowledge the importance of hands-on interaction with the land in creating roots that cause people to stay or return to the community and that foster concern and responsibility for the people and the land. Moreover, it would acknowledge the significance of one-on-one interaction in quality of life as well as the growing importance of quality of life in today's society.

In the process, an ecological perspective of community development would acknowledge the importance of propinquity. It would recognize the significant role commuting plays in rural-community living. In fact, it would revolve around this problem. A Rochester resident said that a rise in the gas price to $3.00 per litre would be the best thing that could happen to small rural communities. I agree: residents would again have incentive to do business at Rochester! On a more realistic note, however, I suggest that an ecological perspective of community development draws residents back *into* the small rural community by addressing their stated needs and wants *inside* of the local community. Within the local community, it must advocate concrete opportunities for residents to gain one-on-one experiences with both the people and the land. It must provide meaningful, do-able, fun, rewarding, and affordable opportunities to work together in the community toward a common goal and vision.

Furthermore, an ecological perspective of community development must employ the self-help approach to community development (see Littrell and Hobbs 1989). Assuming community change is accomplished most effectively when residents participate together in making and acting on community decisions, the self-help process includes democratic procedures, voluntary cooperation, community resources — both human and natural — development of indigenous leadership, and education. And, too, an ecological perspective of community development must incorporate the Social Action Process (see Colorado State University 1967). Used successfully in this study for focus-group recruitment, the Social Action Process calls for initiators to determine and lean on community legitimizers when needing to obtain full-community involvement.

All in all, an ecological perspective must be rooted in the good health of the local community. It must begin with the well-being of residents and always consider the well-being of the land. Recognizing the interconnection and interdependence of the land and the people, it must champion respect and care for the community as a whole.

Meeting Research Objectives

The objectives of this study were the following:

1. to begin to understand the geologic, ecological, anthropological, and social history that shaped and continues to shape the Rochester community.
2. to begin to understand the Rochester community members' range of experiences and views about the region and community they inhabit.
3. to generate analytical questions, propositions, and hypotheses for further study at Rochester and elsewhere.
4. to begin to contemplate an ecological perspective of community development that would form the basis for social change toward global ecological and social well-being
5. to instigate thought, discussion, and interaction among Rochester community members about the changing structure, role and value of their community
6. to provide Rochester community members the opportunity to begin to gain a deep and comprehensive understanding of their community.
7. to provide Rochester community members a foundation of understanding from which a community vision and collective action can be established.

Clearly; objectives one through six have been fulfilled. To be specific, objectives one through four were fulfilled in the research and reporting of this dissertation. Objectives five and six were satisfied by the very design of this study, involving Rochester residents throughout its course. Only objective seven remains — and it will be fulfilled when I (we!) present the results of this study and when I (we) have published a popular book based on it. It is then that I will consider my Ph.D. successfully completed and all objectives successfully met.

Recommendations for Further Research

This case study set out to investigate rural-community change and Rochester residents' perspectives toward community change and well-being. It was an exploratory case-study and, therefore, offered no hypotheses or propositions in advance. No foundation existed upon which to base them (Yin 1989). However, the goal of an exploratory case study is to generate analytical questions, hypotheses, and/or propositions for further study (Yin 1989).

The following propositions arose:

- Sense of attachment to community depends on 1. face-to-face interaction among community members and 2. hands-on interaction with the land.
  Hands-on interaction with the land is the experience of seeing, touching, smelling, hearing, and tasting the natural world, as well as efforts to learn its natural history.
- Successful community action results in an improved collective image.

From this study, the following hypotheses arose for further study:

- An increase in in-community opportunities results in a decrease in stress levels of community residents.
- An increase in face-to-face interaction among community members and hands-on interaction with the land together fosters an increase in residents' sense of attachment to community.
- An increase in community interaction results in a decrease in community negativity toward fellow community members.

From this study, numerous recommendations for further study arose:

1. There is need to explore commuting stress, asking, for example,
   - What proportion of residents commute?
   - In what ways and how much does commuting stress impact both individual and, thus, community well-being?
   - What successful coping skills for commuting stress could individuals acquire?
   - How could a small rural community limit commuting stress?
   - How could a small rural community help its residents cope with commuting stress?

2. There is need to investigate the barriers to community involvement for concerned but non-participating residents.

3. There is a need to develop strategies that motivate community involvement amid the stresses of contemporary rural living.

4. There is a need for longitudinal studies that follow a community with fatalistic self-image through several years of community action, asking, for example,
   - What perspectives accompany community action?
   - What community-perceived successes emerge and how?
   - What community-perceived failures emerge and why?
   - What instigates a change in locus of control?
   - What behaviours and perspectives accompany a change in locus of control?

5. There is a need to investigate *how* hands-on interaction with the land helps to create roots in a community.

6. There is a need for further studies — both comparative and empirical — to begin to generalize this study's results to a broader ecological perspective of community development. According to Yin, (1989), a replications of the findings in a second or even third community could lead to results being accepted for a much larger number of similar communities, even though further

replications have not been performed (as with experiments). We cannot generalize findings to other case studies but we can generalize them to theory.

7. There is a need to study the Rochester community interacting with the surrounding region, including Edmonton. This study of Rochester community as a land-based ecosystem with attention to its inner workings and its people is physiological or "skin in." "There's a useful distinction to be made between physiology ("skin in) and ecology ("skin out"), with both viewpoints absolutely necessary to understanding any natural phenomenon," Stan Rowe wrote me (January 1999). Accordingly, a study of Rochester with attention to the outside social, ecological, and political pressures would be ecological "skin-out" or ecological that also would help Rochester to become what it wants to be.

Concluding Remarks

So it is: change is constant. The region we know as Rochester today is inconceivably different from that of the past and, likely, as different from that of the future. An understanding of that change at Rochester — of past and present, of concrete facts and residents' perspectives — provides a foundation of knowledge useful in beginning to steer its direction. For although cosmic and ecological forces play the ultimate role in determining the destiny of the local community and, too, outside social pressures play an important role, the information revealed by this study can help members of Rochester and other rural communities make their community what they want it to be.

Results indicated that in this impersonal, fast-paced global society, what Rochester community members want their community to be is a refuge. They want the Rochester community to be a place where they matter, where they make a difference, and where they prosper. *For* their community they want economic, social, and ecological viability. *From* their community, they want opportunities, interaction and personal relationships, and a voice in their future.

Appreciating their community bonds, they value friends, family, and place. These relationships are vital to their formation of roots, basic to their quality of life, and crucial to their individual and community well-being, they say. But words and behaviours conflict. For, at Rochester, one-on-one interaction with both the people and the land are wanting, and their antecedent relationships are missing.

As a result, concrete opportunities for social interaction within the local community are required. More specifically, community well-being requires that residents work collectively on meaningful, do-able, rewarding, fun, and affordable activities. When they define a collective vision and break it down into goals, projects, and steps and when they bring dedication, time, energy, open mindedness, and a positive outlook and behaviour to community work, then Rochester residents can begin to develop the interaction the value and the relationships they seek with each other and place. It will be then they can begin to develop the healthy community required for successful collective action toward their future of choice.

Then, too, as community health improves, perhaps, residents will acquire an empowered concern for the well-being of the land and people planet-wide. Providing an example and working with communities locally and extra-locally, they can work together to make Rochester a community that others look to for hope and advice. "Think globally and act locally:" what Rochester residents view as fantasy today can be reality tomorrow.

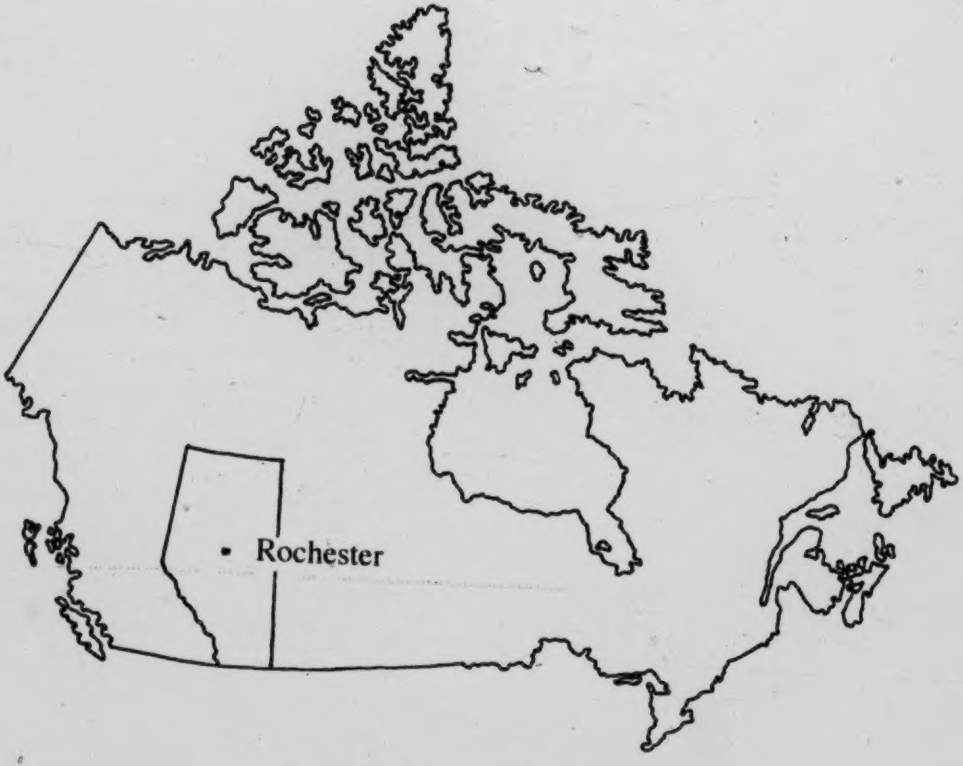

Figure 1.1 Map of Alberta, highlighting Rochester

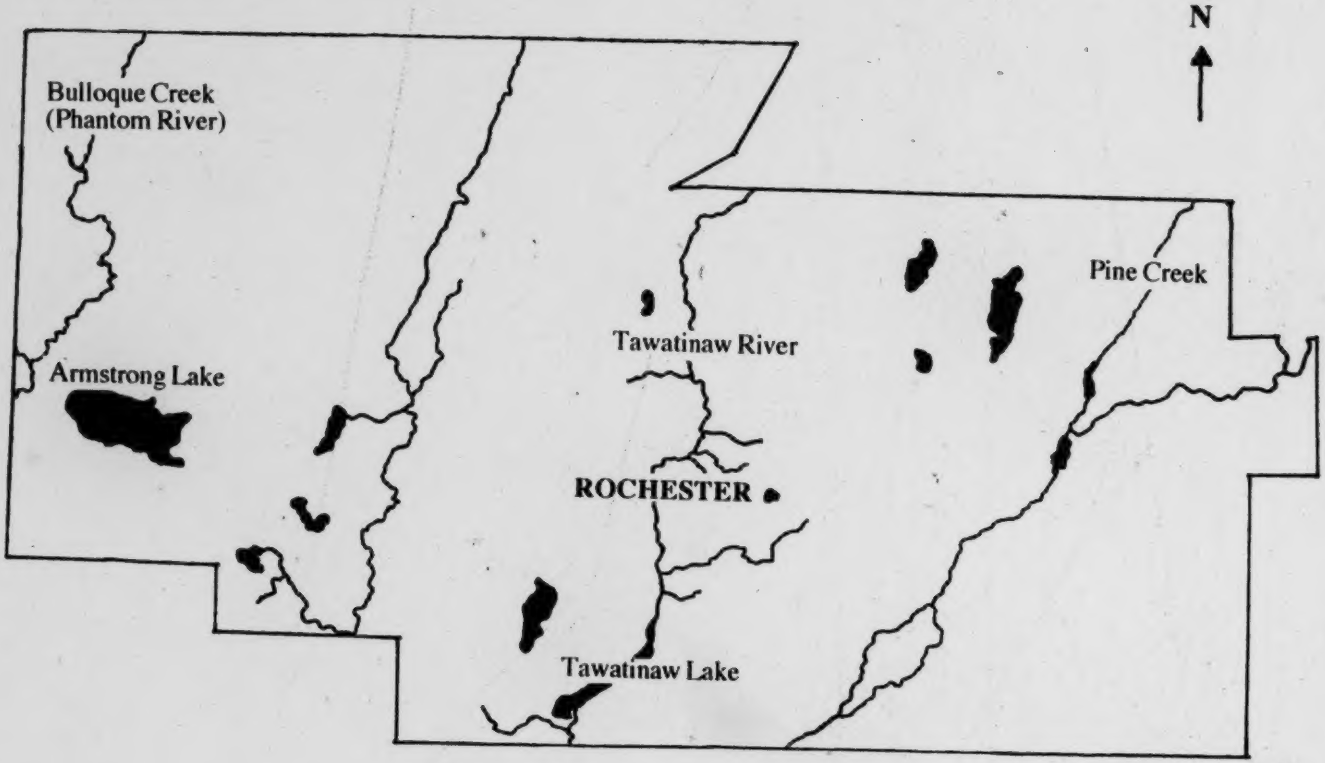
N
Bulloque Creek
(Phantom River)
Armstrong Lake
Tawatinaw River
ROCHESTER
Tawatinaw Lake
Pine Creek

Figure 4.1 Map of the landforms of the Rochester region

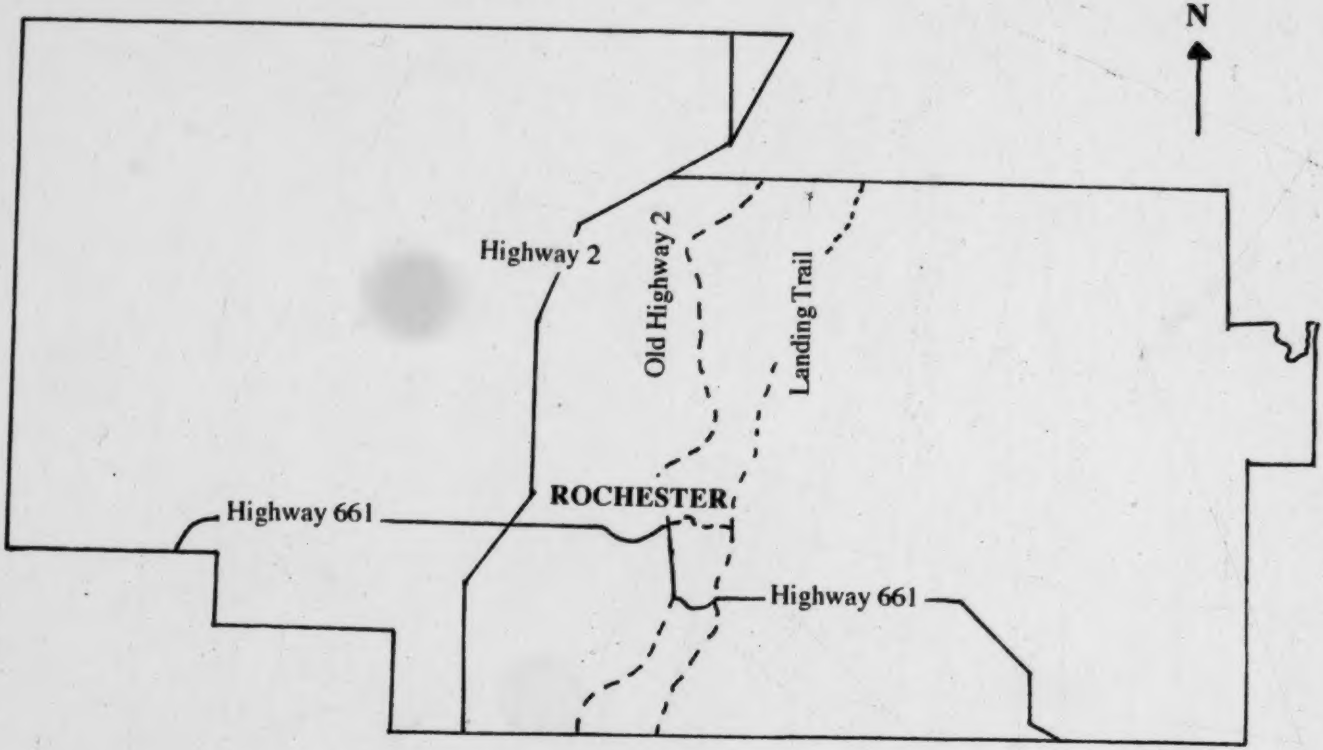
N
Highway 2
Old Highway 2
Landing Trail
ROCHESTER
Highway 661
Highway 661

Figure 6.1 Map of the geography of the Rochester community

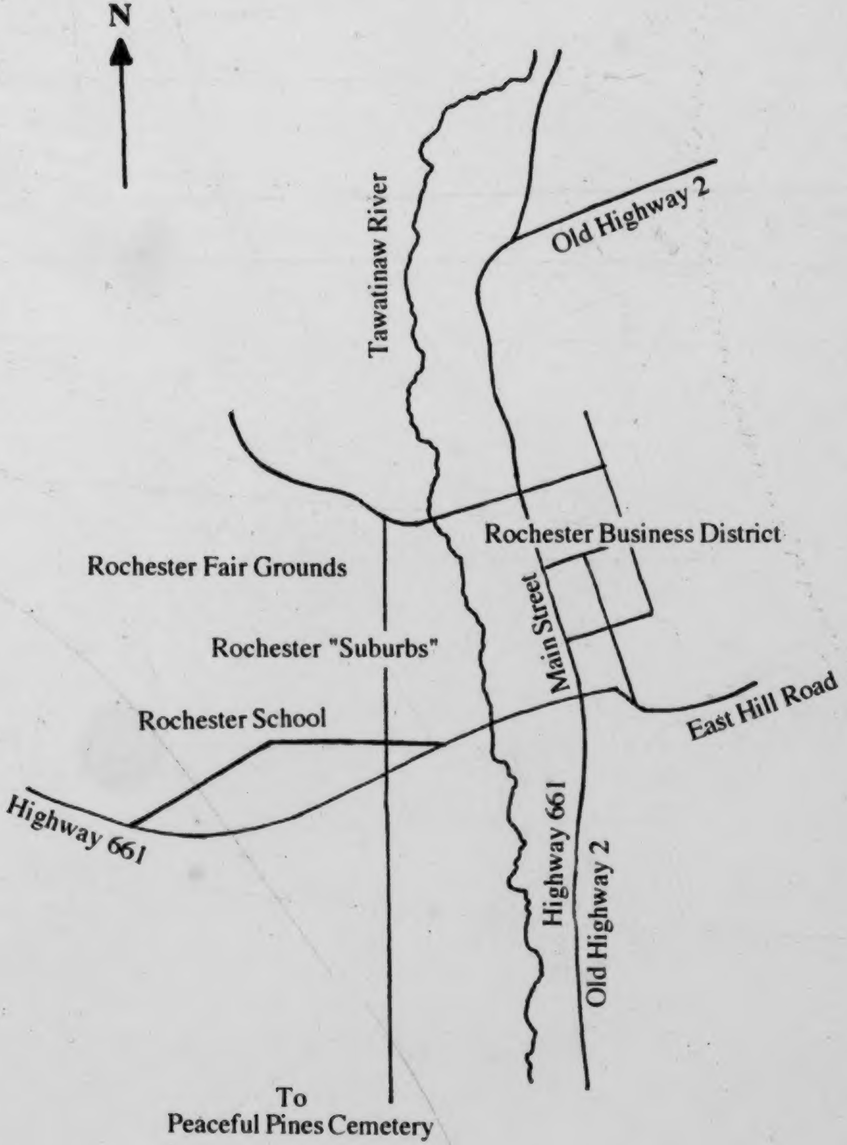
N
Tawatinaw River
Old Highway 2
Rochester Business District
Rochester Fair Grounds
Main Street
Rochester "Suburbs"
Rochester School
East Hill Road
Highway 661
Highway 661
Old Highway 2
To
Peaceful Pines Cemetery

Figure 6.2 Map of the Rochester hamlet

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APPENDIX I

INFORMATION SHEET

Rochester, Alberta — An Exploratory Case Study: Laying the Foundation for a Prosperous and Sustainable Community

ABOUT THIS STUDY

Purpose of this study

Escalated and unprecedented change storms the world today. Ignited by the industrial revolution more than two hundred years ago and fanned by technology, it engulfs the planet and people today. Even through the smallest unit of society — the community — transition rages. Indeed, rural communities endure unparalleled change. In brief, machinery, transportation, and communication systems have improved the rural standard of living, but, at the same time, these innovations have helped to corrode the well-being, health, and sustainability of rural communities. With industrialization and urbanization, face-to-face interactions have declined in rural communities, and identification with community has waned, involvement has decreased, unity has dwindled, and sense of community has faded. At the same time, the economic base of rural settlements has floundered and the land base has deteriorated. Now, as globalization charges hard into the picture, the control that rural communities traditionally have had over their lives and their futures rapidly disintegrates.

To begin to address this problem, this study was undertaken. It is an exploration of one community enduring escalated and unprecedented change, a community at a cross roads. It is an indepth study of Rochester, Alberta that asks "What do Rochester community members want for and from their community?" First, it backgrounds the community, describing the geologic, ecological, anthropological, and social change that shaped the Rochester area. Next, it explores the perspectives of Rochester community members toward the changes and challenges they face. Finally, it blends the findings of both stages of research to provide a foundation of understanding necessary in the creation and maintenance of a prosperous and sustainable Rochester community.

Thus, this study provides an opportunity for Rochester residents to begin to gain a deep and comprehensive understanding of their world and their community. More specifically, it provides at least some residents the opportunity for meaningful face-to-face interaction. Its group discussions will allow a few residents to share, listen, and respond to a wide-range of views and experiences, while its follow-up questionnaire will provide all residents a chance to express their viewpoints.

At the same time that it serves the Rochester community, this study also serves the academic world. Results will be relevant to the academic discussion of community development theory and practice. In short, this study will provide a concrete example from which a new theory of community development can begin to be generated — a theory that acknowledges the roles that local resources and talents and a healthy environment play in the formation of sustainable communities.

Procedures Entailed in This Study

Perspectives will be explored in group discussions and a follow-up survey. Specifically, a series of three one-and-a-half hour group discussions will be held with some thirty Rochester residents who not only care about the community but — as importantly — harbour a wide-range of perspectives. All discussions will be led by a professional moderator and an assistant moderator. Weeks later, a short questionnaire will be issued to all households in the community, its questions based upon the themes and patterns expressed in group discussions. Results will be compiled and presented at a public presentation at the Rochester Hall and a final report will be available to everyone interested.

ABOUT TODAY'S GROUP DISCUSSIONS

Today's discussion will take *one-and-a-halfhours* (1 1/2 hours) of your time. It is a forum for sharing, listening, and responding — a forum in which everyone's viewpoint is valid, valued, and encouraged. We are hoping to hear a range of perspectives.

All of your responses will remain completely confidential and will be used for research purposes only. Our only interest is to hear your views and experiences about community changes and challenges. Participants are asked to keep confidential all information disclosed during the group discussion. Tape transcripts are confidential. Tapes recorded during the group discussion will be erased upon completion of the final report. Moreover, results in the final report cannot be linked to your responses, with those responses analyzed into themes and patterns, results reported in terms of group averages or trends, names changed, and quotes attributed to fictional characters.

If you have any questions concerning today's discussion, please ask us for clarification. *Please understand that you can decline to enter this discussion and withdraw from this discussion AT ANY TIME without any consequences.*

APPENDIX II

CONSENT FORM

Rochester, Alberta — An Exploratory Case Study: Laying the Foundation for a Prosperous and Sustainable Community

RESEARCHERS

Diana Keith	(403) 698-2580 / (403) 432-9269
Dr. Bruce Dancik	(403) 492-8182
Dr. Dhara Gill	(403) 492-4598

CONSENT

This is to certify that I have voluntarily agreed to participate in a Rochester-community group discussion. I understand the primary purpose of this discussion is to learn the perspectives of Rochester community members toward their community and, more specifically, to understand what it is that residents would like for and from their community.

I have been assured that personal records relating to this study will be kept confidential. The information gathered during this session will be reported in terms of group averages or trends. Names will not be associated with this data. I understand that I and other participants will be asked to keep confidential all information disclosed during the group discussion. Furthermore, I understand that I may end my participation in this discussion session at any time without consequence.

The project has been explained to me. I have read the attached Information Sheet. And I have had an opportunity to ask questions that have been answered to my satisfaction. If additional questions or comments arise after today's sessions, I understand that I am free to contact Diana Keith.

Name of Participant: ______________________________

Signature of Participant: ______________________________

Name of Witness: ______________________________

Signature of Witness: ______________________________

Signature of Investigator or Designee: ______________________________

Date: ______________________________

APPENDIX III

INTERVIEW GUIDE
FOCUS-GROUP INTERVIEWS
FRIDAY
14 MARCH, 1997
7:00 P.M.

Rochester, Alberta — An Exploratory Case Study: Laying the Foundation for a Prosperous and Sustainable Community

INFORMAL GREETING AND REGISTRATION

Arrival to 7:10 (10 MINS.)

A) Refreshments
B) Hand outs:
  1. Information Sheet
  2. Consent form — to be signed and collected immediately

FORMAL WELCOME

7:10 - 7:15 (5 MINS.)

1. The welcome
2. The overview of the topic
3. The ground rules
4. The first question

Good evening and welcome to our session tonight. Thank you for taking the time to join our discussion about the Rochester Community. My name is Dianne Conrad and I will moderate tonight's session. Assisting me is Keltie Hunter who is an observer and will handle most of the recording duties.

We are working on behalf of a doctoral student at the University of Alberta who is interested in understanding the perspectives that Rochester community members have toward their community. More specifically, we're interested in understanding what it is that you'd like for your community and from your community. You've been invited here to share your viewpoints. You were selected because each of you — at some time or another — have expressed concern for or commitment to the Rochester community. What's more, together you hold a wide-range of perspectives and experiences.

Tonight, we will be discussing your experiences, your thoughts, and your feelings about the Rochester community. This is a time for sharing, listening, and responding. We will strive for open honest communication and respectful, equal participation. Everyone's viewpoint is encouraged, valid, and important. There are no right or wrong answers — just your own experiences and perspectives. So, please, feel free to share even though your point of view may differ from other participants. We're just as interested in negative comments as in positive comments, and, at times, the negative ones are most helpful. We've placed a pad of paper and a pencil in front of each of you to jot down and remember ideas that may come and go during the conversation; we'll collect these at the end of the session.

We are tape-recording the conversation because we don't want to miss any of your comments. If anyone is uncomfortable with being recorded please say so, and know — of course — that you 're welcome to leave. In accordance with the University's ethical guidelines for this type of research, whatever you say here will be treated confidentially. When we analyze our notes, we'll refer back to the tapes and, when we complete the final report, we'll erase the tapes. Also, in any published reports or public presentations, we will protect your identity, mentioning no names. Finally, we ask that you keep confidences and assume that others will do so as well.

Before we begin, let me share some ground rules. Please speak up — only one person should talk at a time. If several people are talking at the same time, the tape will get garbled and we'll miss your comments. We'll have no formal breaks during the next hour-and-a-half and smoking is not permitted in the room. However, you may refill your coffee cup, go to the washroom, or have a smoke break outside this room at any time. The washroom is located across from the kitchen door.

Everyone should have a good chance to talk. I will pace our discussion and encourage everyone to participate from time to time. If the topic of discussion wanders, however, I'm sure you yourselves will probably refocus discussion to the question at hand. No one is under any pressure to say anything that might make you feel uncomfortable or embarrassed. Our session will end at approximately 8:30.

Let's begin.

#1. Please tell us your name, your occupation, and how long you've lived in the Rochester community.

My name is Diane Conrad. I'm a ___. And I just came to Rochester this afternoon.

(Then, go around the room, including Keltie.)

FAMILIARITY QUESTION

7:15 - 7:20 (5 MINS.)

#2. Think back to when you moved to Rochester or — if you're a life-long Rochester resident — to when your family first moved here. Why Rochester: what features did Rochester, Alberta possess that led you or your family to move here?

KEY QUESTIONS

7:20 - 7:30 (10 MINS.)

#3. A number of reasons for moving to Rochester have been mentioned. Unlike many people who came and left Rochester, all of you came and stayed. What features did the Rochester community possess that led you to stay here?

7:30 - 7:35 (5 MINS.)

#4. Describe the ideal Rochester community.

7:35 - 7:50 (15 MINS.)

#5. How does this ideal community differ from Rochester today?
   A) What are the strengths of the Rochester community today?
   B) What are its weaknesses today?

7:50 - 8:00 (10 MINS.)

#6. Think ahead to Rochester thirty years from now — when today's Rochester School children are middle-aged. What, if anything, needs to happen to make the Rochester community a good place to live?
(Feel free to consider social conditions, economic conditions, and environmental conditions.)
   A) What features of the community, if any, should change?
   B) What features of the community do you think should stay the same?

8:00 - 8:10 (10 MINS.)

#7. What concerns do you have for this community's future?

8:10 - 8:20 (10 MINS.)

A) (PROMPT: After participants have answered #7, distribute "Topics" handout, allow time for written comments, then discuss.) What concerns — if any — do you have regarding the topics listed on this handout? If you have concerns, please check-off the appropriate topics and comment.

SUMMARY QUESTIONS

8:20 - 8:35 (15 MINS.)

#8. Let's summarize our discussion, reviewing the key questions and critical points.
Our goal is to understand this community's perspectives about what you want for and from your community. We have asked you the following questions (flip chart):

#2 What features did Rochester, Alberta possess that led you or your family to move here?
$3 What features did the Rochester community possess that led you to stay here?
#4 Describe the ideal Rochester community.
#5 How does this ideal community differ from Rochester today?
  A) What are the strengths of the Rochester community today?
  B) What are its weaknesses today?
#6. Think ahead to Rochester thirty years from now— when today's Rochester School children are middle-aged. What, if anything, needs to happen to make the Rochester community a good place to live?
  A) What features of the community, if any, should change?
  B) What features of the community do you think should stay the same?
#7. What concerns do you have for this community's future?

In response to these questions, you have said... (The moderator will give a TWO-MINUTE summary of the responses to questions #2, #3, #4, #5, #6, and #7).

Does this summary sound complete? Have we missed anything? Do you have any changes or additions to make?
(If suggestions are made, the group is asked to confirm or correct the new ideas.)

#9. Let's conclude this discussion by going around the table to hear your final position on what you think is the most important issue discussed today.

CLOSURE

8:35 - 8:40 (5 MINS.)

As we conclude this session, I'd like to thank you for coming tonight. Diana Keith will be reviewing the results of this discussion and the two other discussions, using key findings to design of a community survey. Once the survey has been issued , returned, and analyzed, results will be written up and, then, reported at a community meeting. They will help provide a concrete example from which a theory of community development can be generated — a theory that acknowledges the role that both community well-being and environmental health play in a sustainable future. What's more, it is hoped, the results and today's discussion will provide an opportunity for Rochester residents to begin to gain a deep and comprehensive understanding of their world and their community. This is the first brick in building a more prosperous and sustainable community.

We encourage you to call Diana Keith should you have any comments or suggestions.

WRITTEN REMARKS

Before you leave, if you'd take a minute to jot down any ideas or concerns that you felt uncomfortable expressing or were unable to express during the discussion. If you've said all you'd like to say about the Rochester community, we'd appreciate a few words about these group discussions — maybe some advice. Just jot down your thoughts on the paper in front of you. Then, on your way out, please hand us these ideas, the notes you jotted down during the discussion, and the handout we passed out.

Thanks again for coming!

APPENDIX IV

FOCUS-GROUP QUESTIONS

Rochester, Alberta — An Exploratory Case Study: Laying the Foundation for a Prosperous and Sustainable Community

1. Please tell us your name and how long you've lived in the Rochester community.

2. Think back to when you moved to Rochester or — if you're a life-long Rochester resident — to when your family first moved here. Why Rochester: what features did Rochester, Alberta possess that led you or your family to move here?

3. A number of reasons for moving to Rochester have been mentioned. Unlike many people who came and left Rochester, all of you came and stayed. What features did the Rochester community possess that led you to stay here?

4. Describe the ideal Rochester community.

5. How does this ideal community differ from Rochester today?
   A) What are the strengths of the Rochester community today?
   B) What are its weaknesses today?

6. Think ahead to Rochester thirty years from now — when today's Rochester School children are middle-aged. What, if anything, needs to happen to make the Rochester community a good place to live?
   A) What features of the community, if any, should change?
   B) What features of the community do you think should stay the same?

7. What concerns do you have for this community's future?
   A) What concerns — if any — do you have regarding the topics listed on this handout? If you have concerns, please check-off the appropriate topics and comment.

8. Let's summarize our discussion, reviewing the *key questions* and *critical points*.

9. Let's conclude this discussion by going around the table to hear your final position on what you think is the most important issue discussed today.

APPENDIX V

POTENTIAL TOPICS OF CONCERN

POSSIBLE CAUSES OF CONCERN	COMMENTS
___ new people moving in	
___ weekenders	
___ cliques	
___ gossip	
___ changing ways	
___ changing attitudes	
___ crime	
___ social interaction	
___ community cooperation	
___ opportunities for community involvement	
___ community involvement in region issues	
___ community activities	
___ community spirit and solidarity	
___ community festivals	
___ community celebration	
___ leadership	
___ education	
___ youth opportunities	
___ the family	
___ the elderly	
___ childcare	
___ the school	
___ the churches	
___ entertainment	
___ cultural events	
___ cultural opportunities	
___ current local businesses	
___ potential local businesses	
___ public services	
___ road construction	
___ transportation	
___ modern agriculture	
___ global markets	
___ valley scenery	
___ tourism	
___ real estate development	
___ the environment	
___ commercial logging	
___ logging in the valley	
___ sand and gravel mining	
___ gas and oil activity	
___ community control over its future	
___ local identity	
___ favourite places in Rochester area	
___ pollution	
___ sacred places in Rochester area	
___ waste management	

POSSIBLE ISSUES OF CONCERN	COMMENTS
___ modern farming trends:	
fewer farms	
increasing farm size	
fewer farm families	
absentee land-owners	
other	
___ children leaving	
___ new people moving in	
___ weekenders	
___ daily community interaction	
___ community cooperation	
___ opportunities for community involvement	
___ community involvement in regional issues	
___ local identity	
___ community spirit and solidarity	
___ community festivals and celebrations	
___ specific community activities	
___ cliques	
___ gossip	
___ leadership	
___ education	
___ youth opportunities	
___ the family	
___ the elderly	
___ childcare	
___ the school	
___ the churches	
___ changing ways	
___ changing attitudes	
___ crime	
___ entertainment	
___ cultural opportunities	
___ cultural events	
___ public services	
___ road construction	
___ transportation	
___ valley scenery	
___ tourism	
___ wild plants and animals	
___ real estate development	
___ commercial logging in the area	
___ logging in the valley	
___ sand and gravel mining	
___ gas and oil activity	
___ modern agricultural practices	
___ global markets	
___ current local businesses	
___ potential local businesses	
___ favourite places in the Rochester area	
___ "sacred" places in the Rochester area	
___ land / air / water pollution	
___ waste management	
___ community control over its future	
___ other	

APPENDIX VI

LETTER TO PROSPECTIVE PARTICIPANTS

Department of Rural Economy
Faculty of Agriculture, Forestry, and Home Economics, 515 General Services Bldg
University of Alberta
Edmonton, Alberta T6G 2H1

7 March, 1997

Dear ________:

Thank you for accepting our invitation to attend the discussion at the Rochester Senior's Drop-In Centre on Friday, March 14th. The meeting will begin promptly at 7:00 p.m. and will conclude at 8:30 p.m. If you would like time to settle in beforehand, please arrive a few minutes early. Dress is casual.

The discussion will be a gathering of Rochester community members discussing the changes and challenges facing the community. It will be a forum for sharing, listening, and responding — a forum in which everyone's perspectives and experiences are valued and encouraged. As is University policy, all responses will remain completely confidential, used only for research purposes.

We're looking forward to a fun and stimulating evening that will provide meaningful face-to-face interaction among a handful of community members with a range of viewpoints. It is our hope that participants will begin to gain a deep and comprehensive understanding of their community and, ultimately — when the study is completed — that the community will gain a foundation of understanding on which to build a prosperous and sustainable future.

We'll be talking with only a limited number of people, and, therefore, the success and quality of our discussion depends upon the cooperation of the people who attend. Because you have accepted our invitation, your attendance is anticipated and will help to make the research project a success.

If for some reason you find that you cannot attend, please contact us as soon as possible. Please call Diana Keith at either 698-2194 or (403) 432-9269.

We look forward to seeing you on March 14.

Sincerely,

Diana Keith
Researcher

Dr. Dhara Gill
Research Supervisor

Dianne Conrad
Discussion Moderator